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A PILOT STUDY OF DRINKING WATER SYSTEMS IN THE U. S. FOREST SERVICE SYSTEM

Environmental Protection Agency

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16. Abstracts: This study was undertaken to assess the water quality, construction, maintenance, operation and surveillance of water systems on U.S. Forest Service lands. Nine national forest were studied in California, Colorado, North Carolina, and Georgia. Field work was conducted during the summer of 1973. Some major findings of this study of 119 water systems are: (1) Fifty-four percent of the systems delivered water that did not comply with one or more constituent limits of the 1962 Public Health Service Standards. (2) Twenty percent of the systems sampled were contaminated with coliform bacteria. (3) Ninty-seven percent of the systems had an inadequate bacteriological surveillance program. (4) Ninety-two percent of the water systems studied had no chemical analysis on record. Of those systems with a record of chemical analysis, none included all the constituants of the drinking water standards. The report contains recommendations for necessary improvements.

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A PILOT STUDY OF DRINKING WATER SYSTEMS IN THE U.S. FOREST SERVICE SYSTEM

ENVIRONMENTAL PROTECTION AGENCY

OFFICE OF WATER AND HAZARDOUS MATERIALS

WATER SUPPLY DIVISION

November 1974

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INTRODUCTION

INTRODUCTION

The quality of water served to Americans in their homes has received increasing attention in recent years. However, little notice has been given to the quality of drinking water available to the public at recreational areas. Generally, these are very small water supplies which receive little surveillance or maintenance. These supplies have great potential for spreading waterborne diseases since they serve large numbers of people.

The significance of this becomes readily apparent when it is realized that approximately 71 million visitor-days per year are spent at the fully developed areas of the U.S. Forest Service alone. If recreational activities such as hiking and fishing in lesser developed areas are included, the visitation increases to 188 million visitor-days per year.

In view of these important public health considerations, the U.S. Forest Service cooperated with the Water Supply Division of the Environmental Protection Agency to conduct a pilot study of 119 water systems in nine National Forests. These forests experience more than 8.9 million visitor-days per year.

The purpose of this study was to assess the construction, water quality, operation, maintenance and surveillance of water supplies on U.S. Forest Service lands, and to propose any recommendations necessary for the U.S. Forest Service to maintain an effective water supply program; thus assuring the visitors to National Forests safe drinking water.

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SUMMARY OF FINDINGS AND RECOMMENDATIONS

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SUMMARY OF FINDINGS AND RECOMMENDATIONS

This study included 119 drinking water supply systems in nine National Forests. The field work, completed in July, August and September of 1973, was divided between California in the far West, Colorado in the Rocky Mountains, and North Carolina and Georgia in the South. At each water system a sanitary survey was conducted; water samples from the distribution system were collected for bacteriological, chemical, and physical analyses; chlorine residuals were measured, and the distribution system pressure was determined.

The specific findings and recommendations of the study are:

Water Quality

1. Sixty-four (54 percent) of the 119 drinking water systems did not comply with the constituent limits of the U.S. Public Health Service Drinking Water Standards. Thirty-six systems (30 percent) failed at least one mandatory chemical or bacteriological limit and 40 (34 percent) did not comply with at least one recommended limit. *The presence of substances failing a mandatory limit constitutes grounds for the rejection of the supply; therefore, their continued presence should be carefully monitored and evaluated by appropriate health authorities and a decision made regarding corrective measures or discontinuing use of the supply.*

2. Bacteriological analysis of samples collected from the distribution system during the survey showed that 17 (18 percent) of the systems using ground water and seven (27 percent) of the systems using surface water were contaminated. Where contamination was found, the Forest Service was notified immediately. *To prevent bacteriological contamination of the source, improved source protection and attention to the sanitary conditions of the water systems are necessary. Disinfection should be a mandatory requirement for all systems using surface water. Since high turbidity can impede the disinfection process, other treatment should be employed as necessary to ensure that the turbidity level meets the limit established in the Drinking Water Standards. Disinfection should be a mandatory requirement for all drinking water systems using ground water unless a history of satisfactory bacteriological quality and sanitary surveys is developed.*

Surveillance

3. Records of the bacteriological surveillance for the 12 months preceding the study were investigated for each water system. The results of this investigation show that only 4 (3 percent) of the water systems surveyed had an acceptable bacteriological surveillance program. No samples were taken during three or more months at 66 (55 percent) of the water systems. An examination of the bacteriological quality for the 12 months prior to the field visit revealed that 42 (35 percent) of the systems failed the Drinking Water Standards for one or more months. *A bacteriological sampling program that will meet the minimum requirements of the Drinking Water Standards should be required at each system. This program should be continued at all times the system is operational. All samples should be analyzed at a laboratory certified by a State or an EPA approved certifying officer.*

4. There was no chemical analysis on record for 110 (92 percent) of the water systems studied. None of the chemical analyses performed included all of the constituents in the Drinking Water Standards. *The water from all drinking water systems should be tested for all chemical constituents listed in the Drinking Water Standards before the water is made available to the public. Additional chemical analyses should be made at the minimum of once every three years for systems supplied by ground water or more often when there is reason to believe the chemical quality may be deteriorating. Water systems supplied by surface water should receive a chemical analysis on a yearly basis. The results of all chemical sampling should be forwarded to one office in each Forest Service Region so that trends in chemical quality and frequency of surveillance may be reviewed on a continuing basis.*

5. Sanitary surveys are necessary to identify and correct sanitary deficiencies in water systems. One hundred fourteen (96 percent) systems in this study were found not to have had records of a sanitary survey. *Yearly sanitary surveys of and continuing attention to each water system should be provided. For water systems that are not operated during the winter months, the sanitary surveys should be performed when the system is placed in operation in the spring. No water system should be placed in operation until satisfactory bacteriological quality has been obtained.*

Operation, Control, and Protection

6. Fifty-four (45 percent) of the water systems studied did not have adequate source protection. *The source protection of a water system is vital to the maintenance of a safe water supply. More attention should be given to proper source protection in well and spring construction and surface water intakes.*

7. The adequacy of the operation and control was determined at all water systems. Forty-two (35 percent) of the water systems were judged not to have adequate operation and control. Treatment equipment and/or chlorine residuals were not checked daily at these systems. The study shows that while personnel are

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available for water system maintenance, many of the individuals responsible for the water systems do not have a full knowledge of what they should be doing and the reasoning behind these duties. *The U.S. Forest Service should assure that all persons responsible for the operation of a water system in the National Forests are adequately trained.*

8. An adequate level of chlorine was not found in all parts of the distribution system at 26 (72 percent) of the systems where chlorination equipment was operated. This includes 22 (61 percent) systems where no chlorine residual was detected. *Daily inspection of the chlorine feed equipment and daily records of the chlorine residuals should be maintained. Chlorine residuals should be present at the ends of the distribution system.*

9. The ability of each water system to deliver a continuous supply of safe drinking water was investigated. Fifty-nine (50 percent) of the systems needed major improvements such as a change in source, treatment equipment, distribution system, and/or storage facilities. *Improvements should be made where necessary to help assure safe water at all times.*

10. The results of this study show the need for improving the surveillance procedures. *One office within each Forest Service Regional Office should be responsible for approving all water system designs and plans, monitoring the bacteriological and chemical surveillance of all systems, and providing sanitary surveys and technical assistance for all water systems. This office should have the authority to prohibit the use of water from any water system not meeting accepted standards. The cost of an adequate surveillance program, which would typically include a chemical analysis of the water from systems using surface water every year and from systems using ground water once every three years, two bacteriological samples per month for 12 months of operation, and one sanitary survey each year, approaches $375 per system. This is the estimated amount that the U.S. Forest Service should be spending in professional time, expenses, and laboratory costs to provide the needed surveillance.*

SCOPE

SCOPE OF SYSTEMS STUDIED

There are 154 National Forests under the jurisdiction of the U.S. Forest Service. They comprise 182 million acres of land diverse in vegetation, scenery, and climate. In 1973, the Forest Service recorded approximately 71 million visitor-days at its developed areas and several times this for all forest areas.

This study covered 119 drinking water systems in nine National Forests. A water system as defined by this study includes the collection, treatment, and distribution facilities from the sources of supply to the free flowing outlets of the distribution system.

The pilot study was centered in three geographical areas. The California region included two forests in southern California and one in nothern California. Three forests in Colorado comprised those studied in the Rocky Mountain region, and three forests were visited in North Carolina and Georgia as part of the southern region.

Table 1 lists those forests that were visited in each region and gives information on the visitation in each forest in 1972. Visitation in the National Forests is measured by visitor days. A *visitor-day* can be defined as one visitor at a site for a 12-hour period, or 12 visitor-hours. For example, if an individual used a recreation site for a full day (24 hours), two visitor-days would be recorded for that use. Also, if 12 persons used a site for one hour each, one visitor-day would be recorded. The visitor-days are reported for visits to developed areas and do not included the many sportsmen and travelers that spend time in the undeveloped areas of the forests. The three forests studied in the California region represent 4.5 million visitor-days per year, those in the Rocky Mountain region 2.5 million visitor-days, and the three in the southern region represent 1.0 million visitor-days per year. The location of each forest where evaluations were made is shown in Figures 1, 2, and 3.

Figure 4 summarizes the types of water systems that were studied. Ninety-three systems (78 percent) in the study were supplied by ground water. Of these, 39 were predominantly supplied by springs and 54 were supplied by wells. Twenty-three of these wells were hand pumped. Of the twenty-six (22%) systems supplied by surface water, all but four were supplied by streams. The remainder used lakes as raw water sources.

U.S. Forest Service Study
TABLE 1.–Summary of forests included in the study

Forest	Size of Forest (Acres)		Visitor Days in Developed Areas (1973)	
California Region				
Angeles National Forest	648,866		2,018,000	
Cleveland National Forest	393,085		1,086,000	
Shasta-Trinity National Forest	2,066,254		1,411,800	
Total		3,108,205		4,515,800
Rocky Mountain Region				
Arapaho National Forest	1,003,373		1,291,300	
Pike National Forest	1,106,101		619,300	
Roosevelt National Forest	776,139		589,300	
Total		2,885,613		2,499,900
Southern Region				
Chattahoochee-Oconee National Forests	783,529		513,300	
Nantahala National Forest	449,281		194,900	
Pisgah National Forest	478,297		313,800	
Total		1,711,107		1,022,000
TOTAL		7,704,925		8,037,700

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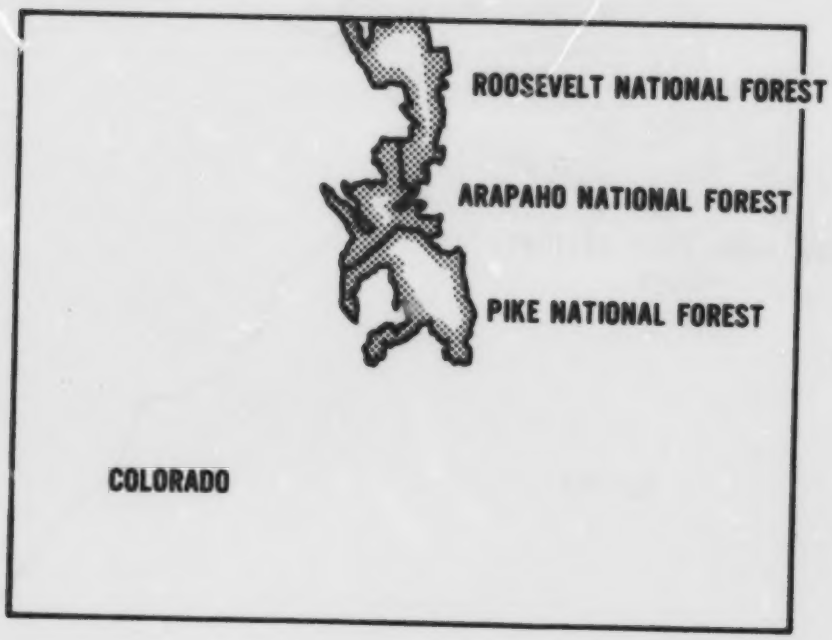
U.S. FOREST SERVICE STUDY

FIGURE 1
LOCATIONS OF FIELD EVALUATIONS IN CALIFORNIA

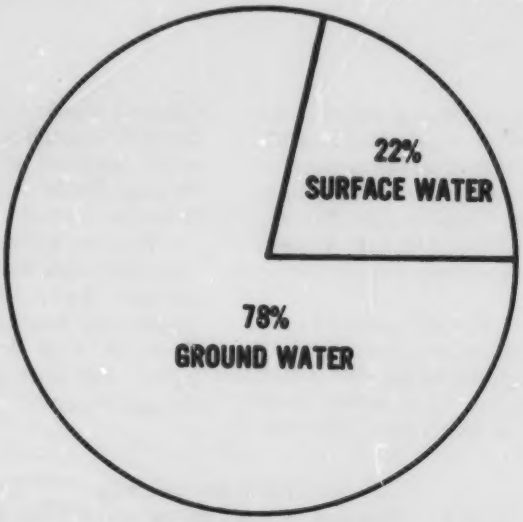


U.S. FOREST SERVICE STUDY

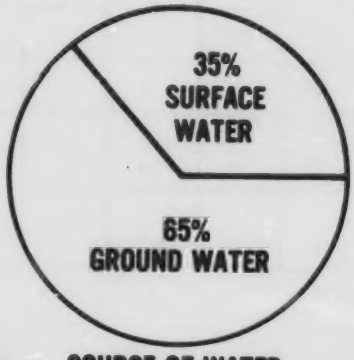
FIGURE 2
LOCATIONS OF FIELD EVALUATIONS IN COLORADO

U.S. FOREST SERVICE STUDY

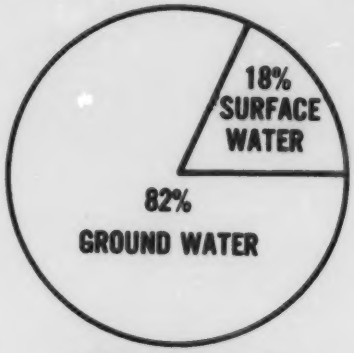
FIGURE 3
LOCATIONS OF FIELD EVALUATIONS IN GEORGIA AND NORTH CAROLINA



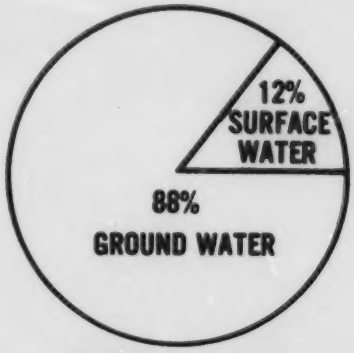
SOURCE OF WATER
ALL SYSTEMS



SOURCE OF WATER
CALIFORNIA
REGION



SOURCE OF WATER
ROCKY MOUNTAIN REGION



SOURCE OF WATER
SOUTHERN REGION

U.S. FOREST SERVICE STUDY

FIGURE 4
TYPES OF WATER SYSTEMS STUDIED

A summary of the water treatment practices at the water systems that were surveyed is presented in Table 2. There was no water treatment at 80 (67 percent) of the water systems studied. This includes Chantry Flats in Angeles National Forest, the Crags in Pike National Forest, and Prospector and Pickle Gulch in Arapaho National Forest that used surface water.

Disinfection was practiced at 36 (30 percent) water systems, including 16 ground water systems and 20 surface water systems. In addition to the four surface water systems listed above, two other surface water systems had sand filters but no disinfection. These were Colbrook Station in Angeles National Forest and Big Bar Camp in Shasta-Trinity National Forest. Chlorine was added manually at two water systems in Arapaho National Forest (Columbine Campground and Clear Creek Picnic Area).

Fourteen (12%) water systems had some type of treatment other than disinfection. This other treatment consisted of a sand filter in all cases except for an alum coagulation, sand and carbon filtration system at Salt Creek Swim in Shasta-Trinity National Forest and carbon and sand filters at Wilkerson Pass in Pike National Forest.

U.S. Forest Service Study
TABLE 2.–Summary of water treatment at systems surveyed

Treatment	Type of System (Number)						System Totals (119)	
	Ground Water (93)			Surface Water (26)				
	Calif	Rocky Mt.	South	Calif	Rocky Mt.	South	Number	Percent
None	17	27	32	1	3	0	80	67
Disinfection Only	7	5	3	6	2	2	25	21
Disinfection and Other Treatment	1	0	0	5	2	3	11	9
Treatment Without Disinfection	1	0	0	2	0	0	3	3

EVALUATION CRITERIA

EVALUATION CRITERIA

The water systems evaluated by this study were assessed from three different but related approaches:

1. Drinking water quality was determined by sampling the finished and distributed water. These samples were sent to the Environmental Protection Agency Laboratories for bacteriological, chemical, and physical analyses.
2. The general condition of the water systems was determined by a field survey of each system. (Copies of the survey forms appear in Appendix A.)
3. The adequacy of the surveillance program was evaluated by reviewing the bacteriological sampling records for the previous 12 months, chemical sampling records, and the past sanitary surveys.

Water Quality Criteria

Based on water samples collected during the field survey, water quality was compared with the Drinking Water Standards (1) (see Table 3) and rated as either:

1. Meeting the Standards for all limits.
2. Failing to meet one or more of the "recommended" limits, but meeting all of the "mandatory" limits.
3. Failing to meet one or more of the "mandatory" limits.

Facilities and Operation Criteria

Source, treatment, operation, and distribution facilities were judged (2) either:

1. To be deficient if one or more of the following were inadequate:
   a. Source protection
   b. Treatment, if needed
   c. Pressure (20 psi minimum) in all areas of the distribution system
   d. Operation and control
   e. Storage
   f. Distribution system

Surveillance Criteria

The surveillance of a water supply system was judged to be adequate if it met the following criteria:

1. Collection of the required number[3] of bacteriological samples during the period of the year the water system is in operation. The required number of samples is based on the population using the water system. A minimum of two samples per month is required for systems serving less than 2500 people. For the water systems in this study the minimum of 2 samples per month was used as the basis for evaluating the adequacy of bacteriological surveillance.
2. A complete chemical analysis of a sample of the water every three years.
3. At least one sanitary survey of the water system each year.

[1]Public Health Service Drinking Water Standards, 1962. PHS Publication No. 956, Superintendent of Documents, Government Printing Office, Washington, D.C., 61 pp.

[2]See "Manual for Evaluation Public Drinking Water Supplies," EPA, Reprinted 1971, Previously published in 1969 as PHS publication 1820, for basis of judgement.

[3]See pages 3-6 of the Drinking Water Standards.

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U.S. Forest Service Study

TABLE 3.–Criteria for evaluating bacteriological, chemical, and physical quality of water systems studied

Recommended Physical and Chemical Limits[1]

If the concentration of any of these constituents are exceeded, a more suitable supply should be sought.

Constituent	Limit mg/l
Turbidity	5 (s.u.)
Color	15 (s.u.)
Arsenic	0.01
Chloride	250.
Copper	1.
Fluoride	0.8 to 1.7
Iron	0.3
(MBAS) (Foaming Agents)[2]	0.5
Manganese	0.05
Nitrate	45.
Sulfate	250.
Total Dissolved Solids	500.
Zinc	5.

Mandatory Chemical Limits[1]

The presence of the following substances in excess of the concentrations listed shall constitute grounds for the rejection of the supply; therefore, their continued presence should be carefully measured and evaluated by health authorities and a decision made regarding corrective measures or discontinuing use of the supply.

Constituent	Limit mg/l
Arsenic	0.05
Barium	1.0
Cadmium	0.01
Chromium (Hexavalent)	0.05
Fluoride	1.4 to 2.4
Lead	0.05
Mercury[2]	0.002
Selenium	0.01
Silver	0.05

Mandatory Bacteriological Limits[1]

Coliform Organisms:

Membrane Filter Method	Fails standards in any one month if: a. Arithmetic average of samples collected is greater than 1 per 100 ml; b. Two or more samples (5% or more if more than 20 examined) contain densities more than 4/100 ml.
Multiple Tube Method	When 10 ml standard portions are examined, the Standards are failed in any one month if more than 10% are positive. The presence of the coliform group in three or more portions of a standard sample is not allowed if this occurs: a. In more than one sample per month or when less than 20 are examined per month; b. In more than 5% of the samples when 20 or more are examined per month. When [illegible] standard portions are examined, the standards are failed in any one month if more than 60% are positive. The presence of the coliform group in all five of the portions of a standard sample is not allowed if this occurs: a. In more than one sample per month when less than five are examined per month; or b. In more than 20 percent of the samples when five or more are examined per month.

[1]In Public Health Service Drinking Water Standards, 1962.

[2]Proposed for inclusion in the Revised Drinking Water Standards.

PROCEDURES

PROCEDURES

Office Review

The water systems to be studied were selected in meetings with representatives of the U.S. Forest Service. An effort was made to select geographical areas or regions where diverse water systems would probably be found. The determination of which systems would be studied in a geographical area was influenced by the time necessary to transport the water samples to the laboratories.

Before the field work was initiated and during the field evaluations, records for the water systems to be studied were reviewed. These records were found in the Forest Service Regional Offices and the individual forest offices. Available information was collected in the following areas:

1. Bacteriological test results for the past year.
2. Water quality as shown by the most recently conducted chemical analysis and the frequency of past chemical surveillance.
3. Information contained in the most recently conducted sanitary survey and the frequency of past surveys.
4. Water system design and construction.
5. Guidelines and policies for construction, operation, and surveillance of water systems.

At the time of the office review, the U.S. Forest Service was in the process of establishing a new system of reporting, record-keeping, and follow-up maintenance of the water supplies operated by the Forest Service.

Field Survey

U.S. Forest Service officials in the regional offices and in the individual forests were given advance notice and an explanation of the survey by the Forest Service's headquarters office. Appointments for the field survey were made five to ten weeks in advance of the visit.

The field surveys were performed by engineers from the headquarters office of the Water Supply Division of the Environmental Protection Agency. A U.S. Forest Service representative from the regional or headquarters office accompanied the EPA engineers during the sanitary[1] survey of each water system. This evaluation included a sanitary survey of the source, treatment plant, storage, and distribution facilities of the water system as well as a review of any records available at the forest for past surveillance. These records were combined with the records obtained in the office review.

The results of the study were recorded on PHS and EPA standard forms and other forms developed especially for use in this study. Field determinations of the pH, pressure, air and water temperature, and chlorine residual at chlorinated systems (using the orthotolidine method) were made at each point where a water sample was taken.

The summary of findings for each water system is shown in Appendix B. On completion of the survey, the individual survey forms were forwarded to those persons responsible for each water system and other interested U.S. Forest Service personnel.

Sampling Program

During the field study, the following samples were taken at each water system:

1. *Raw Water*

   Where possible, one bacteriological sample of the raw water was taken. This sample was omitted if the water in the system did not undergo any treatment. In many systems, a raw water sample could not be obtained because of the physical arrangement of the piping system.

2. *Finished Water*

   a. A 1-gallon grab sample was taken and sent to the National Environmental Research Center in Cincinnati, Ohio, to be analyzed for the following:

Chloride	Selenium
Color	Sulfate
Fluoride	Total Dissolved Solids (TDS)
pH	Turbidity

   b. A 1-quart sample was taken and preserved in the field by the addition of 1 1/4 ml of concentrated nitric acid. The sample was sent to the National Environmental Research Center in Cincinati, Ohio, to be analyzed for the presence of the following trace metals:

Arsenic	Lead
Barium	Manganese
Cadmium	Mercury
Chromium	Silver
Copper	Zinc
Iron	

   c. A 1-quart grab sample was taken and preserved in the field by the addition of 1 ml of a 20,000 ppm solution of mercury (2.71 grams $HgCl_2$ per 100 ml). The sample was sent to the National Environmental Research Center in Cincinnati, Ohio, to be analyzed for nitrates and MBAS (methylene-blue active substances).

   d. Bacteriological samples were taken from the distribution system at a rate of at least 10

[1] See "Manual for Evaluating Public Drinking Water Supplies," EPA, Reprinted 1971, Previously published in 1969 as PHS publication 1820, for the definition of a sanitary survey.

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percent of the number required by the Drinking Water Standards (based on the resident population served by the system) with a minimum of two from any water supply, except at hand pumped systems or other systems with only one outlet. At these supplies, only one sample was taken.

These samples were taken at different points in the distribution system, one close to the treatment plant and one near the end of the distribution line. They were taken from outlets such as drinking fountains, restroom taps and hosebibs in camping areas. A bacteriological sample was taken only after satisfactorily flushing the line; the chemical samples were taken after the bacteriological samples.

Bacteriological samples were collected in 8-ounce sterile, plastic, wide-mouth, screw-capped bottles that contained 0.2 ml of a 10-percent sodium thiosulfate solution. These samples were iced after collection and during transportation to the National Environmental Research Center in Cincinnati, Ohio, or to another central point for processing. The time between collection and the start of the analysis of samples that were not processed by the delayed incubation process did not exceed 30 hours.

Laboratory Procedures

The bacteriological quality examination procedures used in this study were those listed in *Standard Methods*.[1] The membrane filter procedure was used to examine water samples for total coliforms. Two procedures were used depending on the facilities for transporting the samples to the laboratory. One procedure involved using M-endo MF broth and incubating at 35°C for 20-24 hours. Coliform colonies detected were verified further by transfer to lactose broth for 24- and 48-hour periods at 35°C incubation. All positive lactose broth tubes were then transferred to brilliant green lactose broth at 35°C for verification of total coliforms and to EC medium at 44.5°C for detection of fecal coliforms. The other procedure, the delayed incubation technique, involved placing the filter on a transport medium for shipment to the laboratory. The filters were then transferred to the growth medium and incubated in the formal manner.

The laboratory procedures for the chemical and physical analyses of the water samples were those of *Standard Methods*,[2] except for the use of a variation of the colorimetric titration procedure for the chloride analysis.

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[1]Standard Methods for the Examination of Water and Wastewater, 13th ed., (APHA, AWWA, WPCF) American Public Health Association. New York, N.Y., 769 pp. (1971).

[2]Ibid.

FINDINGS

FINDINGS

Water Quality

Sixty-four (54 percent) of the 119 drinking water systems studied delivered water that failed to meet some constituent limit of the Drinking Water Standards. Thirty-six systems (30 percent) failed at least one mandatory chemical or bacteriological limit and 40 (34 percent) failed at least one recommended limit. These figures are shown in graphic form in Figure 5. Figure 6 illustrates the number of systems failing to meet specific constituent limits. As can be seen, the iron standard and the coliform standard were most frequently failed.

U.S. Forest Service Study

TABLE 4.–Drinking water standards limits not met, by geographical area

Constituent	Forests in the California Region (40)		Forests in the Rocky Mountain Region (39)		Forests in the Southern Region (40)	
	Number	Percent	Number	Percent	Number	Percent
	Recommended Limits Not Met					
Chloride	0	0	1	3	0	0
Color	3	8	2	5	2	5
Iron	8	20	9	23	13	33
Manganese	7	18	3	8	5	13
MBAS	0	0	1	3	0	0
Total Dissolved Solids	4	10	2	5	0	0
Turbidity	3	8	1	3	3	8
Zinc	1	3	0	0	9	23
	Mandatory Limits Not Met					
Coliform Organisms	11	28	0	0	13	33
Fluoride	0	0	11	28	0	0
Silver	1	3	0	0	0	0

U.S. Forest Service Study

TABLE 5.–Water systems surveyed failing to meet drinking water standards, by source

Constituent	Ground Water (93)		Surface Water (26)	
	Number	Percent	Number	Percent
	Recommended Limits			
Chloride	1	1	0	0
Color	7	8	0	0
Iron	26	28	4	15
Manganese	14	15	1	4
MBAS	1	1	0	0
Total Dissolved Solids	6	6	0	0
Turbidity	7	8	0	0
Zinc	10	11	0	0
	Mandatory Limits			
Coliform Organisms	17	18	7	27
Fluoride	11	12	0	0
Silver	1	1	0	0

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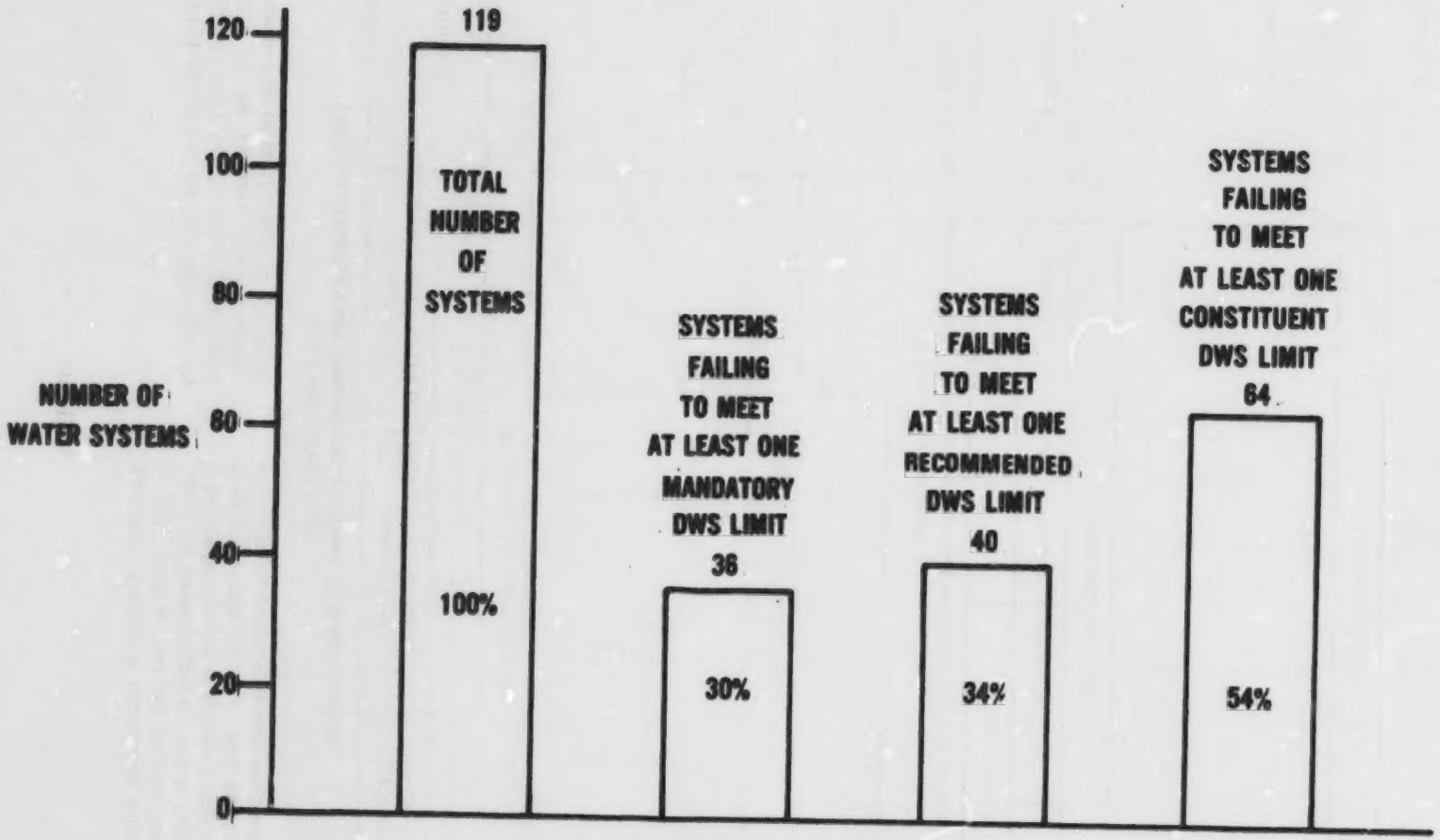


U.S. FOREST SERVICE STUDY

FIGURE 5
NUMBER OF SYSTEMS FAILING TO MEET STANDARDS

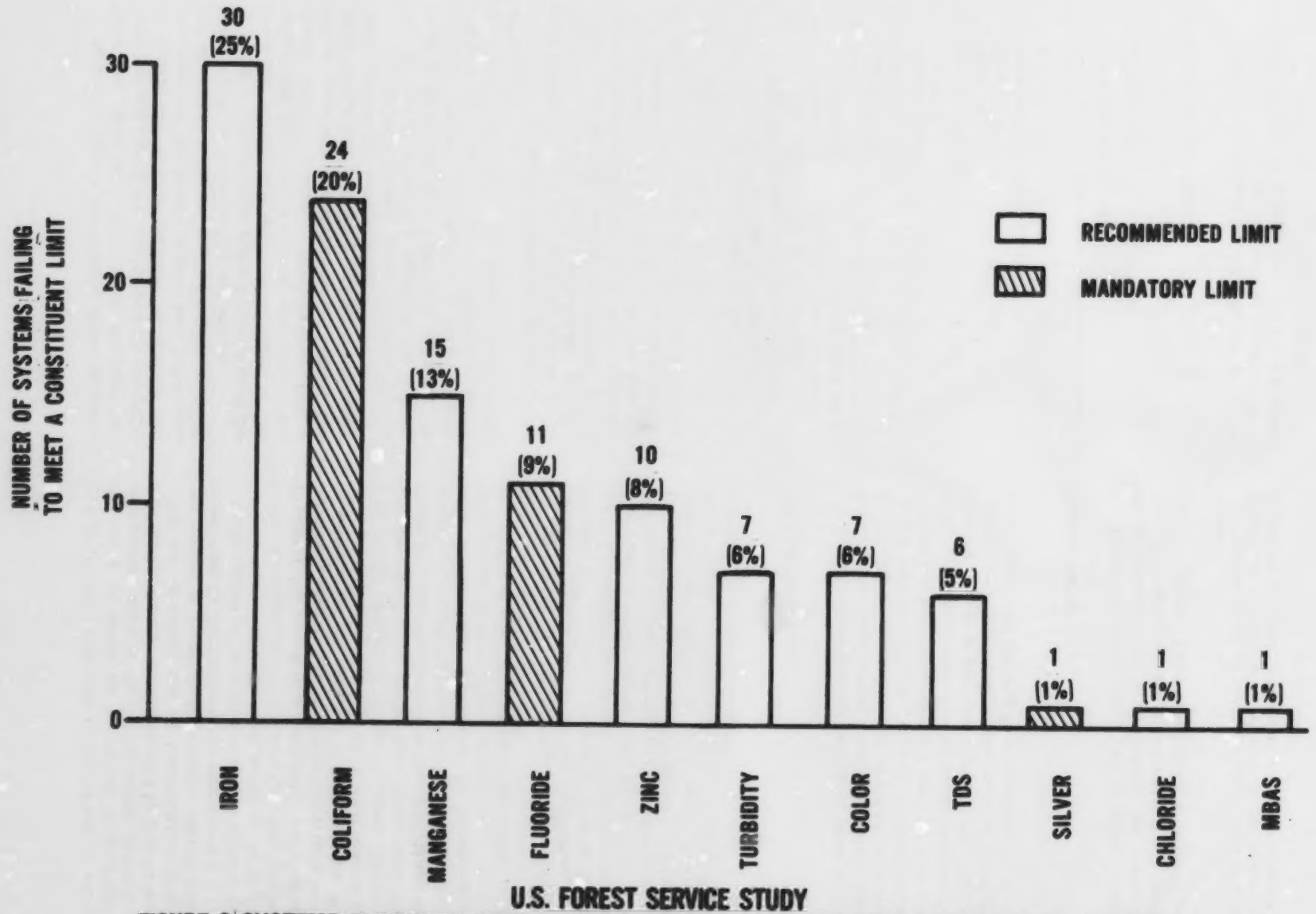


FIGURE 6 SYSTEMS FAILING TO MEET A CONSTITUENT LIMIT OF THE DRINKING WATER STANDARDS

As seen in Table 4, the Drinking Water Standards limits were failed with approximately the same frequency in each part of the country, with the exception of fluoride and coliform standards. All systems not complying with the fluoride standard were in Colorado and all systems failing to meet the coliform standard were in California, North Carolina and Georgia.

Table 5 compares water quality by the source of the raw water. The physical and chemical quality of the surface water was found to be far superior to that of the ground water. The standards failed by water from a surface source were iron, manganese and coliform. The bacteriological quality of the ground water was slightly better than that of the surface water.

The maximum concentrations of various physical and chemical constituents in excess of the Drinking Water Standards are listed in Table 6. As can be seen, the maximum levels of zinc, iron, color, turbidity, and total dissolved solids were very high. The frequency distributions in Table 7 provide a more descriptive picture of the levels found.

Figure 7 compares disinfection practices at the water systems found to have bacteriological contamination on the day of the survey. On the basis of samples collected on the visit, twenty-four systems showed bacteriological contamination. There was no disinfection being practiced at 17 (71 percent) of these systems. Six (25 percent) systems had chlorination equipment, but no chlorine residual could be detected in the distribution system water at the time of the survey.

U.S. Forest Service Study
TABLE 6.–Maximum concentration of physical and chemical constituents failing to meet limits for systems surveyed

Constituent	Concentration mg/L	
Chloride (250)	500	
Color (15)	50	(s.u.)
Fluoride (1.4-2.4)[1]	4.0	
Iron (0.3)	12.2	
Manganese (0.05)	0.88	
MBAS (0.5)	1.1	
Silver (0.05)[1]	0.11	
Total Dissolved Solids (500)	1340	
Turbidity (5)	80	(s.u.)
Zinc (5)	33	

( ) PHS Drinking Water Standard

[1] Mandatory Limit

Bacteriological Surveillance

Since bacteriological samples collected at the time of the field survey can only give an indication of the quality of water at a given time and not a complete picture of water quality over a period of time, an effort was made to gather the records of bacteriological examinations made in the last 12 months before the field survey. Records of tests analyzed by State laboratories were examined, and the bacteriological quality and number of bacteriological samples collected each month from the distribution system were recorded.

The number of bacteriological samples taken in the last year varied widely, depending in part on the length of the operating season of the system. Only four systems (3 percent) had records of an acceptable bacteriological surveillance program.* Three of these four systems were in Colorado and the other was in North Carolina. No samples were taken during three or more months at sixty-six (55 percent) of the water systems. The best sampling record in any of the three regions was in the Rocky Mountain region where twenty-six of thirty-nine systems (67 percent) had samples taken during three or more months. Figure 8 compares the bacteriological monitoring at the water systems studied.
systems (33 percent) had no samples taken during three or more months.

An examination of the bacteriological quality for the twelve months prior to the field visit revealed that forty-two (35 percent) of the systems failed the Drinking Water Standards for one or more months. Again, the best record of bacteriological quality of any of the three regions was the Rocky Mountain region where seven of thirty-nine systems (18 percent) failed the Drinking Water Standards for one or more months. A total of eleven systems (9 percent) failed the Drinking Water Standards for two or more months.

Chemical Surveillance

Records of the chemical analysis of water at U.S. Forest Service systems were almost non-existent. Eight of the water systems in Colorado had a chemical analysis of their water in 1973. Also, the water from one system in California had been analyzed. Except for these nine systems (8 percent) there were no records available for a chemical analysis at any other water systems. None of the chemical analyses performed included all of the constituents in the Drinking Water Standards.

Sanitary Surveys

Where they existed, the records of sanitary surveys of the Forest Service water systems were evaluated. Records of sanitary surveys were available at only five (4 percent) systems. These were located in Colorado and

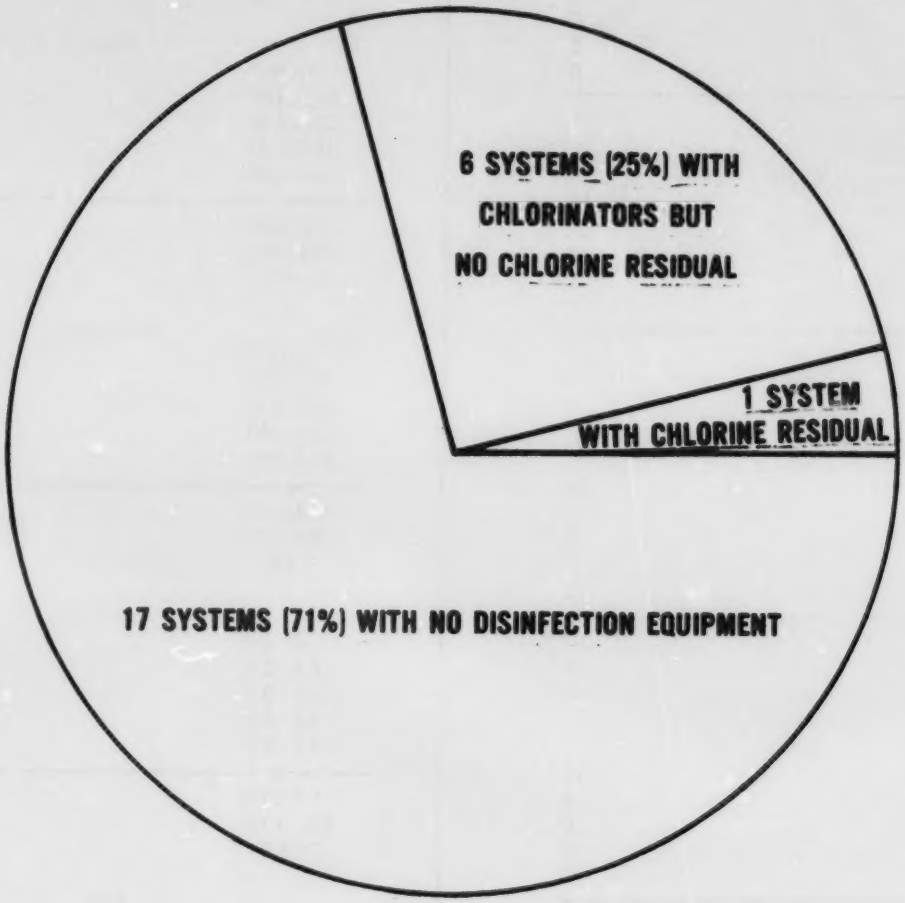
*This means that the sampling frequency as stated in the Drinking Water Standards (a minimum of two samples per month) was met at least every month of operation except one.

U.S. Forest Service Study

TABLE 7.–Frequency distributions of various chemicals that failed to meet the Drinking Water Standards (Line indicates Drinking Water Standards Limit)

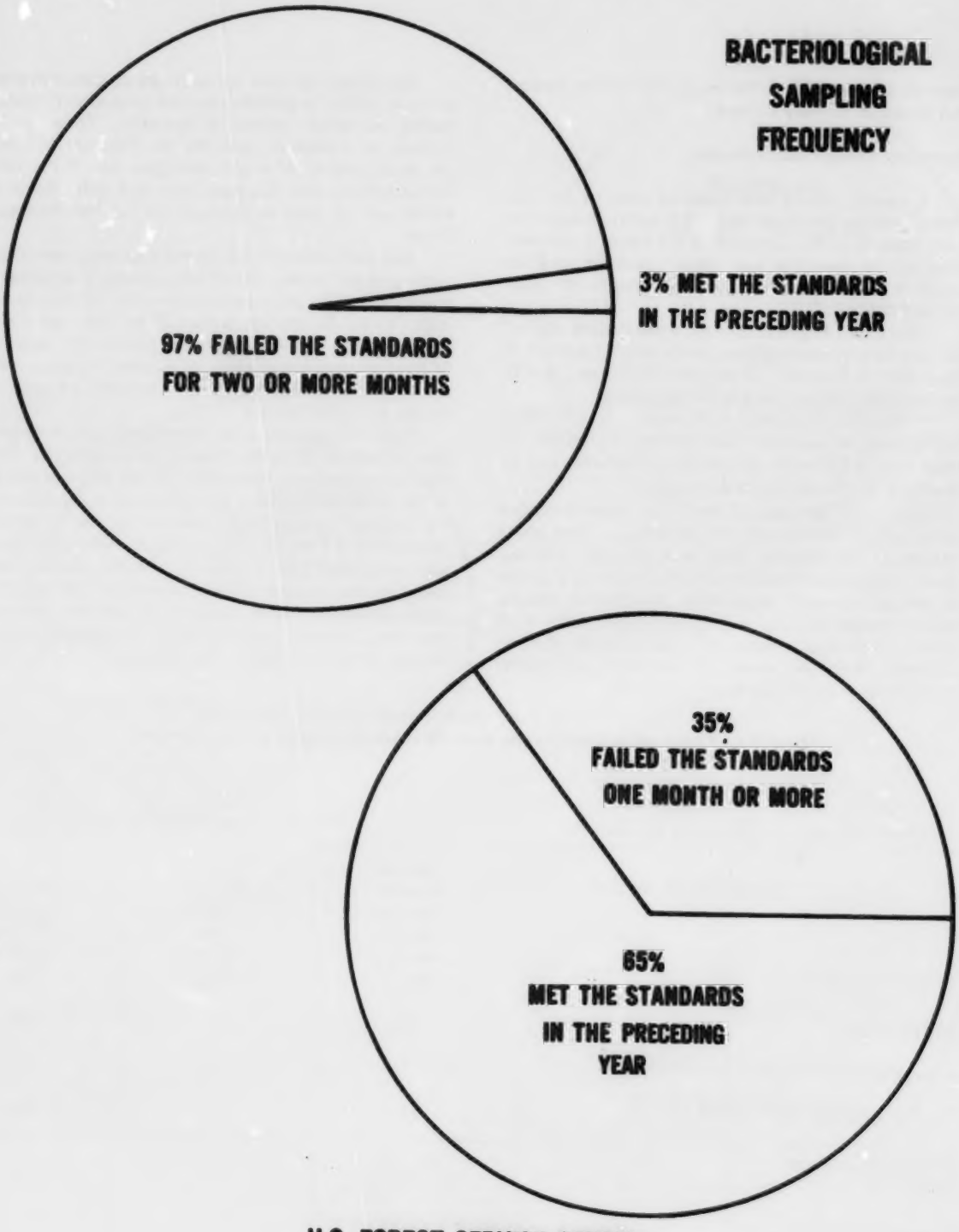
Range	Number
Chloride	
0- 25	112
26- 50	2
51- 75	2
76-100	1
101-200	0
201-225	1
226-250	0
251-500	1
Color	
0- 3.0	16
3.1- 6.0	79
6.1- 9.0	11
9.1-12.0	2
12.1-15.0	4
15.1-30.0	2
30.1-45.0	2
>45.0	3
Fluoride	
0- .40	88
.41- .80	7
.81-1.20	6
1.21-1.60	5
1.61-2.00	2
2.01-4.00	10
4.01-6.00	1
>6.01	0
Silver	
0-.010	117
.011-.020	1
.021-.030	0
.031-.040	0
.041-.050	0
.051-.100	0
.101-.150	1
>.150	0
Total Dissolved Solids	
0- 100	65
101- 200	24
201- 300	19
301- 400	6
401- 500	0
501-1,000	4
1,001-1,500	2
>1,500	0

Range	Number
MBAS (Foaming Agents)	
.250	117
.250- .500	1
.501-1.500	1
Iron	
0-.060	53
.061-.120	21
.121-.180	8
.181-.240	1
.241-.300	6
.301-.600	8
.601-.900	3
>.900	19
Manganese	
0-.010	78
.011-.020	11
.021-.030	5
.031-.040	3
.041-.050	7
.051-.100	4
.101-.150	6
>.150	5
Turbidity	
0- 1.0	93
1.1- 2.0	6
2.1- 3.0	4
3.1- 4.0	5
4.1- 5.0	4
5.1-10.0	2
10.1-15.0	0
>15.0	5
Zinc	
0- 1.0	89
1.1- 2.0	10
2.1- 3.0	4
3.1- 4.0	3
4.1- 5.0	3
5.1-10.0	10
10.1-15.0	0
>15.0	0



U.S. FOREST SERVICE STUDY

FIGURE 7
STATUS OF DISINFECTION AT 24 SYSTEMS
SHOWING COLIFORM CONTAMINATION



U.S. FOREST SERVICE STUDY

FIGURE 8

SUMMARY OF BACTERIOLOGICAL MONITORING
AT WATER SYSTEMS STUDIED

were all done in 1973. None of the other water systems had records of sanitary surveys.

Operation, Control and Protection

A sanitary survey was made of each of the 119 water systems. On the basis of this survey, judgements were made as to the adequacy of the source protection, adequacy of operation and control, and the need for major improvements. The national results are summarized in Figure 9.

Fifty-four (45 percent) of the water systems studied did not have adequate source protection; 43 percent of these were in Colorado, 33 percent in California, and 24 percent in North Carolina and Georgia.

Forty-two (35 percent) of the water systems studied had inadequate operation and control; 31 percent of these were in Colorado, 48 percent in California, and 21 percent in North Carolina and Georgia.

Sixty (50 percent) of the water systems studied were judged not capable of delivering a continuous supply of safe drinking water without major improvements. Major improvements as used here means a change in source, treatment equipment, distribution system, and/or storage facilities to help assure safe water at all times. Forty-three percent of these systems were in Colorado, thirty-five percent in California and twenty-two percent in North Carolina and Georgia.

The source of water for each system was evaluated as to its ability to provide adequate quantities of water during its entire period of operation. Three water systems in California, and two in Colorado had experienced periods of water shortages. All of the California systems with shortages were in Angeles National Forest and all those in Colorado were in Pike National Forest.

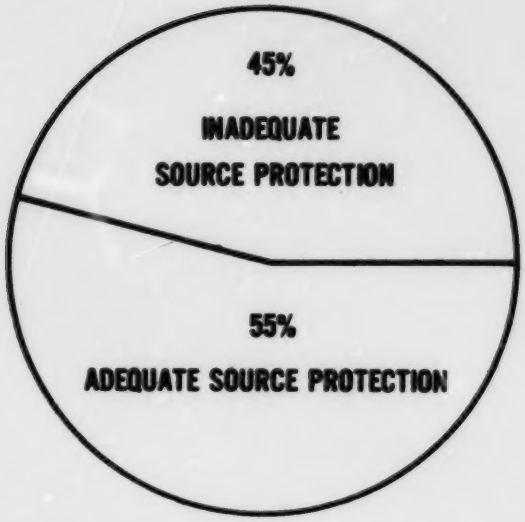
The water pressure was recorded in two places at all water systems having a distribution system. The pressure was judged to be adequate if it exceeded 20 p.s.i. at all points in the distribution system. There were ninety-six systems with a distribution system. Sixteen (17 percent) of these systems had inadequate pressure; 44 percent of these were in Colorado, 44 percent in California, and 12 percent in North Carolina.

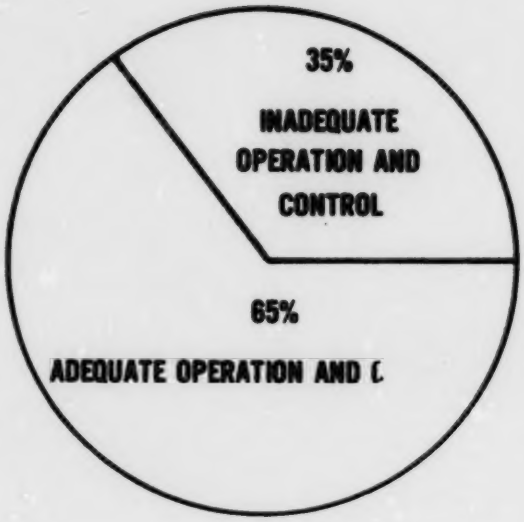
Table 8 summarizes the chlorination practices and their effectiveness at the water systems surveyed. The chlorine residual was determined at two separate places in the distribution system at appropriate water systems. No chlorine residual was detected in the water at twenty-two (61 percent) of the systems where chlorination equipment was operated. A chlorine residual was found in one location at 4 (11 percent) of the systems where chlorination was practiced. A chlorine residual was found in both locations at 10 (28 percent) of the systems where chlorination was practiced.

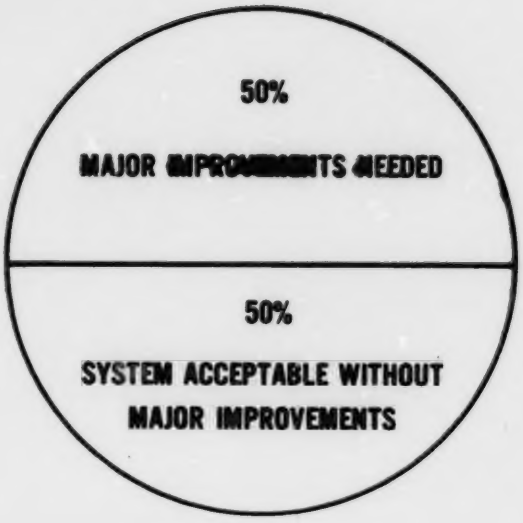
U.S. Forest Service Study

TABLE 8.–Chlorination practices and their effectiveness at water systems surveyed

Source or Area	Number of Supplies That Chlorinate	Percent of those that Chlorinate		
		Chlorine Residual Found at Both Sampling Points	Chlorine Residual Found at One Sampling Point	Chlorine Residual Found at Neither Sampling Point
Surface Water	20	30	15	55
Ground Water	16	25	6	69
TOTAL	36	28	11	61
Supplies in California Region	19	42	5	53
Supplies in Rock Mt. Region	9	22	33	45
Supplies in Southern Region	8	0	0	100
TOTAL	36	28	11	61







U.S. FOREST SERVICE STUDY

FIGURE 9
SUMMARY OF SANITARY CONDITIONS
AT WATER SYSTEMS STUDIED

DISCUSSION

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DISCUSSION

General

The U.S. Forest Service has constructed and operated more recreational facilities than any other agency of the Federal Government. The provision of recreational opportunities for the public is one of the responsibilities of the Forest Service and the public has responded enthusiastically as is evidenced by the 71 million visitor-days recorded at its developed areas. Due to the way a visitor-day is defined, there are probably many more actual visitors, making the quality of water consumed by the public of considerable health importance. The public assumes and rightly expects that the drinking water made available to them is safe for consumption and will be esthetically pleasing. The recommendations included in this report are presented with these objectives in mind.

The Forest Service has a Division of Engineering which acts as consultant for the sanitary facilities in the forests. The engineering offices are located in the Regional Offices, National Forest Supervisor's Offices, and some ranger districts. They prepare plans for water systems on request, but other personnel working for a Forest Supervisor or District Ranger may design, install, and operate a water system without the services of a trained engineer or sanitarian knowledgeable in the public health aspects of design considerations.

Other studies by the Environmental Protection Agency have shown the effectiveness of having a single group responsible for the approval of water system designs and the subsequent surveillance of the water systems. A classification system similar to that used by the Environmental Protection Agency[1] is of great help in assuring the reliability of the water systems. Under a system similar to the one used by EPA, the chemical and bacteriological sampling programs would be monitored, sanitary surveys performed, and designs approved by a single group having the responsibility of approving a system as suitable for use or prohibiting the use of a system. Enough deficiencies in surveillance, facilities, and operation were found in this study to demonstrate the need for this centralized authority.

One of the problems facing all agencies is in applying established criteria and standards for municipal systems to the small types of water systems found in this study. These small systems have water demands that vary to a large degree during the week. Also, due to economic considerations, small systems have a difficult time providing the full water treatment that large water systems routinely employ.

Water Quality

The Drinking Water Standards have been promulgated to provide specific limits for substances which are toxic or cause adverse health effects in man. These substances are usually naturally occurring in the earth, and can be dissolved into the water by the passage of water through certain formations in the earth's surface or by the addition of these substances to water by man (i.e., through pollution). Because of these processes, substances may be found in drinking water in concentrations that are potentially hazardous to health.

Since 54 percent of the water systems did not comply with some constituent limit of the Drinking Water Standards, there is a general need for improvement in water quality for the supplies studied. This need for improvement is not as critical for those supplies which did not comply with only the recommended standards as it is for those which failed to meet the mandatory limits, but improvement is important for all these systems.

Two mandatory chemical limits were not met by water systems in this study: fluoride and silver. Exposure to high levels of fluoride over a period of time may cause dental fluorosis and bone changes, especially for children. The chief effect of silver in the body is cosmetic. It consists of a permanent blue-grey discoloration of the skin, eyes, and mucous membranes. Those systems producing water that failed a mandatory standard were generally grouped in the same geographical area. The source of the problems should be further investigated and the water resampled for another chemical analysis. If the results of this study are confirmed, a new water source should be found or treatment instituted to ensure that the water is safe to drink.

The results of this study also show that 34 percent of the systems produced water that did not meet at least one recommended limit of the Drinking Water Standards. These recommended limits are primarily esthetic in nature and are divided into chemical and physical characteristics. They relate to materials that impart objectionable taste, appearance, or odor to the water, and are important because a consumer may reject a safe water supply if its taste or appearance is unsatisfactory to him. Therefore, these limits should not fail the DWS when a more suitable water source can be made available.

The recommended standards that were not met were those for chloride, color, iron, manganese, MBAS, total dissolved solids, turbidity, and zinc. In almost all cases, these recommended standards and the mandatory standards were not met for ground water, with the surface water having better chemical quality. The surface sources found in this study were in relatively remote areas and generally not subject to pollution by man.

The coliform group of bacteria are used as indicator organisms in testing the sanitary quality of drinking water. This bacteria group proliferates in the intestines

[1] "A Guide to the Interstate Carrier Water Supply Certification Program," Environmental Protection Agency, Washington, D.C. April 1973.

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of man; and when found in drinking water, indicate the potential presence of pathogenic or disease-producing organisms. The Drinking Water Standards prescribe specific criteria for the maximum concentration of coliform bacteria and require that immediate corrective action be taken if this concentration is exceeded.

At the time of the field survey, seventeen (18 percent) of the ground water systems and seven (27 percent) of the systems using surface water as a raw water source were contaminated with coliform bacteria. The meaning of these statistics in relation to the facilities and operation of each system and the surveillance of each system will be discussed later. Immediate steps should be taken to rectify the problem. More samples should be taken until the water supply can be shown to be safe.

Bacteriological Surveillance

The standard used to judge the acceptability of the bacteriological surveillance program is the one used to certify the use of a water supply for an interstate carrier,[1] the legislatively mandated duty of the Federal Government. Ninety-seven percent of the water supplies would not be classified as "provisionally approved" under this system. Only four water supplies in this study were found to have an acceptable bacteriological surveillance program.
bacteriological sampling practices so that a regular program of surveillance is implemented which would comply with Drinking Water Standards requirements. This regular program should be continued during the entire period the system is operational and serving drinking water to the traveling public and should include the provision for follow-up or check samples when unsatisfactory results are obtained. All samples should be sent to a laboratory certified by a State or an EPA approved certifying officer. While there is an advantage in sending the samples to a central laboratory, there are instances where this may be impossible within 30 hours of collection. In such cases, bacteriological analyses made in a certified field laboratory are satisfactory.

The bacteriological quality, as revealed by the review of the results of the bacteriological sampling for the past twelve months, was not satisfactory. Thirty-five percent of the systems failed the Drinking Water Standards for one or more months. With this background there can be no surprise that 20 percent of the bacteriological samples collected for the field evaluations in this study were contaminated.

Chemical Surveillance

None of the water systems studied were subject to a regular program of chemical surveillance. There was no chemical analysis on record at 92 percent of the water systems studied. None of the water systems that had a chemical analysis on record had a complete analysis for all constituents in the Drinking Water Standards.

The water from all drinking water systems should be tested for all chemical constituents listed in the Drinking Water Standards before the water is made available to the traveling public. In addition, a complete chemical analysis is recommended for systems supplied by ground water every three years and surface water every year, or more often when there is reason to believe the chemical quality is deteriorating. The CCE and pesticides analysis may be omitted for ground water systems unless there is reason to suspect ground water contamination. Signs of deteriorating water quality might include unpleasant taste and/or odor or the occurrence of frequent public or operating personnel complaints.

The results of all chemical testing should be forwarded to one office in each U.S. Forest Service Region so that trends in chemical quality and frequency of surveillance may be reviewed on a continuing basis.

Sanitary Surveys

Ninety-six percent of the water systems did not have a sanitary survey in the past year. Although operating personnel at the National Forests generally made visits to the water systems and seemed to be somewhat aware of sanitary conditions, more thorough investigations by trained investigators of the condition of the water systems are needed. Yearly sanitary surveys should include checks on the system's physical facilities used to treat, distribute and store the water and the adequacy and condition of source protection. Any deficiencies noted in the sanitary surveys should be corrected.

Operation, Control, and Protection

The adequacy of the source protection, adequacy of the operation and control, and the need for major improvements for each water system were determined by a sanitary survey of each water system. The adequacy of the source protection was based on the existence of a formation seal in wells, sanitary seal in wells, properly installed vents, adequately protected and drained spring and well pits, protection for springs, etc. Forty-five percent of the systems did not meet the criteria for adequate source protection.

The adequacy of the operation and control was based on whether or not chlorine residuals were checked daily in the distribution systems and, if other treatment was employed, whether or not the treatment facilities were checked daily for optimum operation. Operation and control was also deemed to be inadequate if no chlorine residual was found in the distribution system on the day of the field evaluation. Thirty-five percent of the

[1] "A Guide to the Interstate Carrier Water Supply Certification Program," Environmental Protection Agency, Washington, D.C. April 1973.

water systems did not have adequate operation and control.

For each drinking water system, a determination was made of the capability of the system to deliver a continuous supply of safe drinking water without improvements in the system. Consideration was given to the availability of sufficient raw water to prevent water shortages, existence of cross-connections, proximity to sources of pollution, use of disinfection, adequate capacities of the pumps, adequate pressure in all parts of the system, detention time for maximum benefit from treatment, properly covered and vented storage tanks, etc. There were sixty (50 percent) water systems in need of improvements to help assure safe water at all times.

Water shortages were found to have occurred at five water systems in California and Colorado. At a minimum, periods of no water are a great inconvenience to visitors. But there is a temptation to pump water from other sources which may be less safe or transport water by truck to the water system. This extra handling through temporary connections decreases the margin of safety in any water system. There is also a problem of low water pressure as the system runs dry. For these reasons, new water sources should be developed and treatment instituted as necessary to assure an adequate quantity of water.

Low pressure in drinking water systems is a problem because it reduces the protection of the system from the backflow of contaminated water. Unsafe water may be siphoned into a water system through any kind of temporary or permanent cross connection. Low pressure (less than 20 p.s.i.) was found at sixteen water systems. The pressure problems may have been due in part to underdesigned pipe size in the distribution system, i.e., the pipes were not able to handle the high demand. More attention should be given to this problem in future design work.

There were four systems in this study employing surface water as a source of raw water and not treating the water in any way. Surface water, by its very nature, can become contaminated very quickly and easily, and this condition can continue unnoticed until the next routine bacteriological sample. For this reason, all water from a surface source should be disinfected before use.

One of the major deficiencies noted in this study was the improper operation of disinfection equipment. For those twenty-four systems contaminated with coliform bacteria; six did not disinfect. Chlorinators were installed at eighteen systems showing coliform contamination. However, seventeen of these systems carried no detectable chlorine residual on the day of the field evaluation. Although the remaining system had a chlorine residual, this was not sufficient to prevent contamination due to the severe source protection problems and poor condition of the facilities. Of those systems which chlorinated, twenty-two (61 percent) had no chlorine residual on the day of the survey.

Chlorination of a water system involves several operating problems. Quite often the chlorine feed system becomes clogged or the chlorinator is inadvertently turned off, some consumers complain about the taste and odor of chlorinated water, and during periods of low water use, the chlorine residual is dissipated in the distribution system and sometimes in the storage tank. The fact that a chlorinator has been placed in the water system does not guarantee a safe supply. If chlorinators are to be effectively used for disinfection, daily inspections of the feed equipment and determinations of the chlorine residuals must be conducted. Booster chlorination of the water as it flows to the system from the storage tanks may be necessary.

All of the foregoing operational problems emphasize the necessity for some type of operator training. Some of the individuals responsible for the water systems do not have a full knowledge of what they should be doing and the reasoning behind these duties. A short course or booklet should be developed that would explain why the required maintenance and surveillance practices are important.

Surveillance Program Resource Requirements

The staffing and cost of an adequate surveillance program for a water system operated 12 months per year is about 3.3 man-days and $375 per system. This is calculated according to the following assumptions:

1. The average annual estimated personnel cost for surveillance is $20,000 per-man year.
2. Program administration is 25% of surveillance.
3. The time required for sanitary surveys and related technical assistance (including training) of a water system is 1.0 man-days per system. Assuming 220 man-days per year, the cost of this surveillance is $90 per system per year.
4. One chemical analysis will be performed for each system using surface water every year and for each system using ground water once every three years. The manpower required to perform the laboratory analyses averages .99 man days per system per year and the cost averages $90 per system per year.
5. The manpower required to perform the analysis of two bacteriological samples per month is .66 man days per system per year. The total cost including sample bottles, mailing containers, labels, and postage is $120 per system per year for 12 months of operation.

The total estimated water supply program manpower needs and costs are summarized in Table 9.

Since the U.S. Forest Service has approximately 10,000 water systems under its complete control, the Forest Service should be allocating at least $3,750,000 to its surveillance program. The total manpower needs

are 33,100 man-days per year or 150 man-years. Until the Forest Service has the laboratory capability to analyze the required samples, some of this work must be done on a contract basis.

The manpower and costs required for just the sanitary surveys and technical assistance and the administration of this part of the program is calculated as follows:

Manpower (For 10,000 Forest Service Systems)

(1.0 + .25 (1.0)) 10,000 = 12,500 man-days per year or 57 man-years per year

Costs (For 10,000 Forest Service Systems)

($90 + .25($90)) 10,000 = $1,125,000 per year

U.S. Forest Survey Study
TABLE 9.–Estimated water supply program manpower needs and costs (per system per year)

Program Activity	Man Days	Cost
Surveillance		
Sanitary Surveys, Tech. Assistance	1.00	$ 90
Chemical Surveillance	.99	90
Bacteriological Surveillance	.66	120
Subtotal	2.65	$300
Program Administration @ 25% of Surveillance	.66	75
TOTAL	3.31	$375

PARTICIPANTS

The following persons and organizations contributed to the successful completion of the pilot study:

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	Terry McLaughlin
	Roger Mizell
	William Opfer
	Walter Weaver
	Roger White

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APPENDIX A

SANITARY SURVEY FORMS USED IN STUDY

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WSA 9 (CIN)
REV. 6-72)

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
OFFICE OF WATER PROGRAMS
WATER SUPPLY PROGRAMS DIVISION

SERIAL NO. 16741

PUNCH IN COLS. 1 6

IDENTIFICATION OF WATER SAMPLE

1. LOCATION OF WATER SUPPLY _____
CITY, COUNTY, STATE

FOR OFFICE USE ONLY ☐☐☐☐☐☐☐☐☐☐☐☐ (7–18)

DO NOT WRITE BELOW THIS LINE

2. WATER SUPPLY NAME _____

3. DATE OF SAMPLING — BEGINNING DATE OF COMPOSITE: MO. ☐☐ DAY ☐☐ (19–22); ENDING DATE OF COMPOSITE OR DATE OF GRAB SAMPLE: MO. ☐☐ DAY ☐☐ YR. ☐☐ (23–28)

4. SAMPLE FROM — ☐ TREATMENT PLANT (8) ☐ WELL (4) ☐ RESERVOIR (2) ☐ DISTRIBUTION SYSTEM (1) ☐ OTHER (0) ☐ (29)

5. SAMPLING POINT LOCATION AND/OR DESCRIPTION _____ ☐☐☐ (30–32)

6. TYPE OF WATER SAMPLED — ☐ FINISHED (8) ☐ PARTIALLY TREATED (4) ☐ RAW (2) ☐ OTHER (0) ☐ (33)

7. SOURCE OF WATER — ☐ SURFACE (8) ☐ GROUND (4) ☐ COMBINED (2) ☐ OTHER (0) ☐ (34)

Send Results to
Tech. Op., DWS, EPA
Wash., D.C. 20460

8. SAMPLING METHOD — ☐ COMPOSITE (8) ☐ GRAB (4) ☐ OTHER (0) ☐ (35)

9. ANALYSIS REQUIRED — ☐ ORGANIC (8) ☐ TRACE ELEMENTS (4) ☐ WET (2) ☐ RADIO-CHEMICAL (1) ☐ OTHER (0) ☐ (36)

10. WATER SUPPLY CATEGORY — ☐ COMMUNITY WATER SUPPLY (8) ☐ ICWS (4) ☐ FEDERAL INSTALLATION (2) ☐ SPECIAL STUDY (1) ☐ OTHER (0) ☐☐☐ (37–39)

11. APPEARANCE OF SAMPLE _____

12. ADDITIONAL REMARKS _____

13. COLLECTED BY _____ ☐ USPHS STAFF ☐ OTHER ☐ (40)

DO NOT WRITE BELOW THIS LINE

19. SAMPLE NO. _____ DATE RECEIVED _____

LABORATORY REMARKS

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ENVIRONMENTAL PROTECTION AGENCY

Office of Water Programs
Division of Water Hygiene

INDIVIDUAL WATER SUPPLY SURVEY QUESTIONNAIRE

Card 1

NAME _____ SAMPLE NO. [1][ ][ ][ ][ ][ ]

ADDRESS _____ YEAR [ ][ ]

Col. _____

I. THE SOURCE

9 A. Spring [1]; Well [2]; Surface Source [3]; Cistern [4]

10 B. On-premise [1]; Off-premise [2] (distance: _____)

11 C. Ground Water from: Sand/Gravel [1]; Limestone [2]; Sandstone [3]; Other Formation [4] Specify _____; Unknown [5]

12 D. Construction: By Contractor [1]; Owner/Occupant [2]; Other [3]; Unknown [4]

II. A. SPRING

13 1. Flowing [1]; Non-Flowing [2]; Intermittent [3]

14 2. Encasement: Brick, Block, or Stone [1]; Reinforced Concrete [2]; Other [3]

15 General Condition: Good [1]; Fair [2]; Poor [3]

16 3. Surface Drainage Controlled? Yes [1]; No [2]

17 4. Adequate Fencing around spring? Yes [1]; No [2]

18 5. Water withdrawn with: Power Pump [1]; Hand Pump [2]; Bucket [3]; Gravity Flow [4]; Other [5]

19-20 6. Estimated Minimum Capacity: [ ][ ] (Numeric) GPM

B. WELL

21 1. Dug [1]; Driven [2]; Jetted [3]; Bored [4]; Drilled [5]

2. Dug Well:

22 Acceptable lining to 10' or more? Yes [1]; No [2]

23 Acceptable cover? Yes [1]; No [2]

24 Masonry or other joints lining, sealed: Yes [1]; No [2]; Unknown [3]

25 Reconstructed, sealed and filled: Yes [1]; No [2]

26 General condition: Good [1]; Fair [2]; Poor [3]

3. Other Types of Wells:

27-28 a. Casing: Diameter: [ ][ ] (Numeric) inches, I.D.

Col.

29 Steel or Black Iron ☐1; Galvanized Iron or Steel ☐2; Plastic ☐3; Masonry or Ceramic ☐4; Other ☐5

30 Joints Screwed Coupling ☐1; Joints Welded ☐2; Unknown ☐3

31 Wall thickness, Std. or better? Yes ☐1; No ☐2

b. Depths:

32-34 Ground surface to bottom of well: ☐☐☐ Ft.

35-37 Ground surface to bottom of casing: ☐☐☐ Ft. (Numeric)

c. Formation Seal:

38 Cement grout seal from depth of 5 to 10' up to surface ☐1; 10 to 20' up to surface ☐2; Fine sand (natural) seal 10 to 20' up to surface ☐3; Puddled clay seal 5 to 20' up to surface ☐4; No apparent formation seal between casing and earth ☐5; Concealed (buried) formation grout seal reported ☐6; Unknown ☐7

d. Sanitary Well Seal:

39 Water tight cover? Yes ☐1; No ☐2

40 Well exposed to flooding by surface water? Yes ☐1; No ☐2

e. Well Pit

41 Pit around well? Yes ☐1; No ☐2

42 Pit has acceptable cover? Yes ☐1; No ☐2

43 Pit drains to open air? Yes ☐1; No ☐2

44 Pit drains to drain line or sewer? Yes ☐1; No ☐2

45 Possible to flood pit in any way? Yes ☐1; No ☐2

46 Pitless adapter? Yes ☐1; No ☐2

47 Pitless adapter with top of well buried or below ground level: Yes ☐1; No ☐2

f. Well "Filter" or Screen*

48 Open hole ☐1; Perforated or slotted pipe ☐2; Gravel Pack ☐3; Sand (well) point or screen of horizontal, endless slot type ☐4; Other type of screen ☐5

g. Age of Well: <2 yrs. ☐1; 2-5 yrs. ☐2; 6-10 yrs. ☐3; 11-20 yrs. ☐4; >20 yrs. ☐5

50 C. PUMP AT SOURCE: Yes ☐1; No ☐2; Bucket ☐3

51 1. Hand pump ☐1; "Shallow well" (Low-Lift) Jet or Centrifugal pump ☐2; "Deep well"(Hi-Lift) Jet Pump ☐3; Submersible pump ☐4; Piston Pump ☐5; None ☐6

*Not to be confused with "filter" or strainer attached to suction inlet of pump.

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Col.

I. PHYSICAL QUALITY OF WATER

9 1. Colored ☐1; Turbid ☐2; Clear ☐3; Contains sand ☐4

10 2. Taste: Good ☐1; Fair ☐2; Poor* ☐3 _____

11 3. Evidence of iron or manganese problem: Yes ☐1; No ☐2

12 4. Water Softener in regular operation: Yes ☐1; No ☐2

13 5. Other water conditioner devices used: Yes ☐1; No ☐2

J. PUBLIC AGENCY INTERESTS**

14 1. Has any public agency inspected this supply at any time within the last two years? Yes ☐1 **_____ _____; No ☐2; Unknown ☐3

15 2. Has bacteriological analysis ever been made on the water? Yes ☐1; Date _____,** _____ _____; No ☐2; Unknown ☐3

16 a. If "yes", was the water found "safe"? Yes ☐1; No ☐2

17 b. If "no" (under 2a), were corrections recommended? Yes ☐1; No ☐2

18. c. Were corrections made? Yes ☐1; No ☐2

19 d. After corrections were made, was water retested? Yes ☐1 **_____; No ☐2

20 3. Did the owner, before attempting any construction at the source or before using the source, consult any agency about its suitability? Yes ☐1 **_____ _____; No ☐2

21 4. Have any chemical analyses ever been made on the water? Yes ☐1 Date _____, ** _____ _____; No ☐2; Unknown ☐3

K. USER'S PREFERENCE

22 1. User prefers: Present supply ☐1; Another or improved individual supply ☐2; A public supply ☐3

23-25 ☐☐☐ 2. Reason(s) for Preference: Lower cost ☐1; Better tasting water ☐2; Softer water ☐4; Independence ☐8; More reliable source ☐16; Safer ☐32; More convenient ☐64; Other ☐128

L. PRESENT CONSUMPTION

26 1. Number of dwelling units using system ☐

27-30 2. Number of persons using system. Adults ☐☐; Children ☐☐

31 3. Is water shortage ever experienced: Yes ☐1 **_____ _____; No ☐2

80 CARD NUMBER 2

* Identify if possible

** Identify agency

Col.

52 2. Pump never breaks suction ☐1; Sometimes breaks suction ☐2

53 3. With existing pump, source delivers: <3 GPM ☐1; 3-5 GPM ☐2; 5-10 GPM ☐3; 10-20 GPM ☐4; >20 GPM ☐5

D. SURFACE SOURCE (Stream; Lake)

54 1. Perennial ☐1; Intermittent ☐2

55 2. Upstream: Human activity currently on watershed? Yes ☐1; No ☐2

56 3. Delivery: Flow by pumping ☐1; By gravity ☐2

E. CISTERN

57 1. Catchment Area: Rooftops ☐1; Ground surface paved or covered with impermeable material ☐2

58 2. Ground Area Only: Fenced ☐1; Signs posted ☐2; Unprotected ☐3

59 3. Cistern Construction: Above ground ☐1; Below ground ☐2;

60 Brick or Stone ☐1; Concrete ☐2; Wood ☐3; Steel ☐4

61 General Condition: Good ☐1; Fair ☐2; Poor ☐3

62 4. Device for discarding first water? Yes ☐1; No ☐2

63 5. Cistern Protection: Screened against rodents, birds? Yes ☐1; No ☐2

64 6. Cleaning: Does cistern have drain which permits cleaning and flushing to waste? Yes ☐1; No ☐2

65 Does cistern need cleaning now? Yes ☐1; No ☐2

F. WATER TREATMENT

66 1. Sedimentation: Yes ☐1; No ☐2

67 2. Filtration Through: Sand ☐1; Other Medium ☐2

68 3. Chlorination: Automatic ☐1; Manual ☐2

69 4. Softening: Yes ☐1; No ☐2

70 5. Other: Yes ☐1 (Describe)_____; No ☐2

71 G. STORAGE (All Sources): Yes ☐1; No ☐2

72 1. Pressure tank ☐1

73 2. Other storage: Elevated or Ground Level ☐1; Below ground level ☐2

74 3. Construction: Steel ☐1; Brick, block or stone ☐2; Concrete ☐3; Wood ☐4; Plastic ☐5; Other ☐6

75 4. General Condition: Good ☐1; Fair ☐2; Poor ☐3

76 H. DELIVERY

75 1. Water flows to point of use by hand pumping ☐1; Power pumping ☐2; Gravity ☐3; Hand carry ☐4

80 CARD NUMBER 1; CARD 2 - Dup. 1-8

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APPENDIX B

SANITARY SURVEY RESULTS

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REPORT ON INDIVIDUAL WATER SUPPLIES
U.S. FOREST SERVICE STUDY

NAME OF FOREST Angeles National Forest
NAME OF SUPPLY Chantry Flats
TREATMENT none
DATE OF SURVEY 7/16/73
STORAGE 1 steel and 2 wooden reservoirs
SOURCE surface

68<

BACTERIOLOGICAL QUALITY
NUMBER OF MONTHS IN PAST YEAR OF OPERATION THAT NO BACTERIOLOGICAL SAMPLES WERE TAKEN. 4
NUMBER OF MONTHS IN PAST YEAR OF OPERATION THAT ONE BACTERIOLOGICAL SAMPLE WAS TAKEN. 6
NUMBER OF MONTHS WHEN THE BACTERIOLOGICAL LIMITS OF THE DWS WERE NOT MET. 8

CHEMICAL QUALITY
DWS MANDATORY LIMITS FAILED Bacteriological Standard
DWS RECOMMENDED LIMITS FAILED

SANITARY CONDITIONS
IS THE SOURCE PROTECTION ADEQUATE? YES ___ NO x
Source protection is inadequate.

IS OPERATION AND CONTROL ADEQUATE? YES x NO ___

IS THE WATER SYSTEM CAPABLE OF DELIVERING A CONTINUOUS SUPPLY OF SAFE WATER WITHOUT MAJOR IMPROVEMENTS? YES ___ NO x
There is a cross connection with faucets used for irrigation. Disinfection should be installed on surface sources.

PHYSICAL AND CHEMICAL RESULTS

ARSENIC (0.01)*	<.005	FLUORIDE (1.4 to 2.4) **	.70	pH	7.9
(0.05)**		IRON (0.3)*	.023	SELENIUM (0.01)**	<.005
BARIUM (1.0)**	<.05	LEAD (0.05)**	.000	SILVER (0.05)**	.000
CADMIUM (0.01)**	.000	M.B.A.S. (0.5)*	<.250	SULFATE (250)*	< 25.
CHLORIDE (250)*	10.	MANGANESE (0.05)*	.000	TOTAL DISSOLVED SOLIDS (500)*	236.
CHROMIUM (.05)**	.000	MERCURY	<.0005	TURBIDITY (5 s.u.)*	.1
COLOR (15 s.u.)*	3	NITRATE (45)*	8.0	ZINC (5.0)*	.076
COPPER (1.0)*	.000				

*RECOMMENDED LIMIT **MANDATORY LIMIT
ALL VALUES ARE MILLIGRAMS PER LITER UNLESS OTHERWISE NOTED.

BACTERIOLOGICAL RESULTS

	COLIFORM/100 ml	FECAL COLIFORM/100 ml
RAW WATER	0	0
DISTRIBUTION #1	9	0
DISTRIBUTION #2	6	0

REPORT ON INDIVIDUAL WATER SUPPLIES
U.S. FOREST SERVICE STUDY

NAME OF FOREST Angeles National Forest
NAME OF SUPPLY Coldbrook Station
TREATMENT none
DATE OF SURVEY 7/16/73
STORAGE 1 steel & 2 concrete reservoirs
SOURCE surface

BACTERIOLOGICAL QUALITY
NUMBER OF MONTHS IN PAST YEAR OF OPERATION THAT NO BACTERIOLOGICAL SAMPLES WERE TAKEN. 7
NUMBER OF MONTHS IN PAST YEAR OF OPERATION THAT ONE BACTERIOLOGICAL SAMPLE WAS TAKEN. 5
NUMBER OF MONTHS WHEN THE BACTERIOLOGICAL LIMITS OF THE DWS WERE NOT MET. 0

CHEMICAL QUALITY
DWS MANDATORY LIMITS FAILED
DWS RECOMMENDED LIMITS FAILED

SANITARY CONDITIONS
IS THE SOURCE PROTECTION ADEQUATE? YES x NO ___

IS OPERATION AND CONTROL ADEQUATE? YES x NO ___

IS THE WATER SYSTEM CAPABLE OF DELIVERING A CONTINUOUS SUPPLY OF SAFE WATER WITHOUT MAJOR IMPROVEMENTS? YES x NO ___

PHYSICAL AND CHEMICAL RESULTS

ARSENIC (0.01)*	<.005	FLUORIDE (1.4 to 2.4) **	1.00	pH	8.1
(0.05)**		IRON (0.3)*	.013	SELENIUM (0.01)**	<.005
BARIUM (1.0)**	<.05	LEAD (0.05)**	.000	SILVER (0.05)**	.000
CADMIUM (0.01)**	.000	M.B.A.S. (0.5)*	<.250	SULFATE (250)*	< 25.
CHLORIDE (250)*	<10.	MANGANESE (0.05)*	.000	TOTAL DISSOLVED SOLIDS (500)*	210.
CHROMIUM (.05)**	.000	MERCURY	<.0005	TURBIDITY (5 s.u.)*	.2
COLOR (15 s.u.)*	2	NITRATE (45)*	1.0	ZINC (5.0)*	.023
COPPER (1.0)*	.000				

*RECOMMENDED LIMIT **MANDATORY LIMIT
ALL VALUES ARE MILLIGRAMS PER LITER UNLESS OTHERWISE NOTED.

BACTERIOLOGICAL RESULTS

	COLIFORM/100 ml	FECAL COLIFORM/100 ml
RAW WATER	0	0
DISTRIBUTION #1	0	0
DISTRIBUTION #2	0	0

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REPORT ON INDIVIDUAL WATER SUPPLIES
U.S. FOREST SERVICE STUDY

NAME OF FOREST Angeles National Forest
NAME OF SUPPLY Chilao Camp
TREATMENT none
DATE OF SURVEY 7/18/73
STORAGE 3 tanks
SOURCE springs

BACTERIOLOGICAL QUALITY
NUMBER OF MONTHS IN PAST YEAR OF OPERATION THAT NO BACTERIOLOGICAL SAMPLES WERE TAKEN. 4
NUMBER OF MONTHS IN PAST YEAR OF OPERATION THAT ONE BACTERIOLOGICAL SAMPLE WAS TAKEN. 8
NUMBER OF MONTHS WHEN THE BACTERIOLOGICAL LIMITS OF THE DWS WERE NOT MET. 1

CHEMICAL QUALITY
DWS MANDATORY LIMITS FAILED Bacteriological Standard
DWS RECOMMENDED LIMITS FAILED

SANITARY CONDITIONS
IS THE SOURCE PROTECTION ADEQUATE? YES ___ NO x
Surface drainage not controlled

IS OPERATION AND CONTROL ADEQUATE? YES x NO ___

IS THE WATER SYSTEM CAPABLE OF DELIVERING A CONTINUOUS SUPPLY OF SAFE WATER WITHOUT MAJOR IMPROVEMENTS? YES ___ NO x
Source of supply is not adequate.

PHYSICAL AND CHEMICAL RESULTS

ARSENIC (0.01)*	<.005	FLUORIDE (1.4 to 2.4) **	<.10	pH	7.6
(0.05)**	<.005			SELENIUM (0.01)**	<.005
BARIUM (1.0)**	<.05	IRON (0.3)*	.055	SILVER (0.05)**	.000
CADMIUM (0.01)**	.000	LEAD (0.05)**	.000	SULFATE (250)*	<25.
CHLORIDE (250)*	<10.	M.B.A.S. (0.5)*	<.250	TOTAL DISSOLVED	117.
CHROMIUM (.05)**	.000	MANGANESE (0.05)*	.000	SOLIDS (500)*	
COLOR (15 s.u.)*	3	MERCURY	<.0005	TURBIDITY (5 s.u.)*	.5
COPPER (1.0)*	.020	NITRATE (45)*	<1.0	ZINC (5.0)*	1.000

*RECOMMENDED LIMIT **MANDATORY LIMIT
ALL VALUES ARE MILLIGRAMS PER LITER UNLESS OTHERWISE NOTED.

BACTERIOLOGICAL RESULTS

	COLIFORM/100 ml	FECAL COLIFORM/100 ml
RAW WATER	0	0
DISTRIBUTION #1	38	0
DISTRIBUTION #2	0	0

REPORT ON INDIVIDUAL WATER SUPPLIES
U.S. FOREST SERVICE STUDY

NAME OF FOREST Angeles National Forest
NAME OF SUPPLY Buckhorn Station
TREATMENT sand filter
DATE OF SURVEY 7/18/73
STORAGE concrete tank
SOURCE spring

BACTERIOLOGICAL QUALITY
NUMBER OF MONTHS IN PAST YEAR OF OPERATION THAT NO BACTERIOLOGICAL SAMPLES WERE TAKEN. 11
NUMBER OF MONTHS IN PAST YEAR OF OPERATION THAT ONE BACTERIOLOGICAL SAMPLE WAS TAKEN. 1
NUMBER OF MONTHS WHEN THE BACTERIOLOGICAL LIMITS OF THE DWS WERE NOT MET. 1

CHEMICAL QUALITY
DWS MANDATORY LIMITS FAILED Bacteriological Standard
DWS RECOMMENDED LIMITS FAILED

SANITARY CONDITIONS
IS THE SOURCE PROTECTION ADEQUATE? YES ___ NO x
Site is exposed and has limited protection.

IS OPERATION AND CONTROL ADEQUATE? YES x NO ___

IS THE WATER SYSTEM CAPABLE OF DELIVERING A CONTINUOUS SUPPLY OF SAFE WATER WITHOUT MAJOR IMPROVEMENTS? YES ___ NO x
Spring does not flow continuously. Pressure not adequate at all points in distribution system.

PHYSICAL AND CHEMICAL RESULTS

ARSENIC (0.01)*	<.005	FLUORIDE (1.4 to 2.4) **	<.10	pH	7.5
(0.05)**				SELENIUM (0.01)**	<.005
BARIUM (1.0)**	<.05	IRON (0.3)*	.032	SILVER (0.05)**	.000
CADMIUM (0.01)**	.000	LEAD (0.05)**	.000	SULFATE (250)*	<25.
CHLORIDE (250)*	<10.	M.B.A.S. (0.5)*	<.250	TOTAL DISSOLVED	95
CHROMIUM (.05)**	.000	MANGANESE (0.05)*	.000	SOLIDS (500)*	
COLOR (15 s.u.)*	3	MERCURY	<.0005	TURBIDITY (5 s.u.)*	.2
COPPER (1.0)*	.020	NITRATE (45)*	.000	ZINC (5.0)*	.014

*RECOMMENDED LIMIT **MANDATORY LIMIT
ALL VALUES ARE MILLIGRAMS PER LITER UNLESS OTHERWISE NOTED.

BACTERIOLOGICAL RESULTS

	COLIFORM/100 ml	FECAL COLIFORM/100 ml
RAW WATER	0	0
DISTRIBUTION #1	80	0
DISTRIBUTION #2	80	0

REPORT ON INDIVIDUAL WATER SUPPLIES
U.S. FOREST SERVICE STUDY

NAME OF FOREST **Angeles National Forest** DATE OF SURVEY 7/17/73
NAME OF SUPPLY **Rincon Station** STORAGE 2 concrete tanks
TREATMENT **none** SOURCE 2 springs

60<

BACTERIOLOGICAL QUALITY
NUMBER OF MONTHS IN PAST YEAR OF OPERATION THAT NO BACTERIOLOGICAL SAMPLES WERE TAKEN. 3
NUMBER OF MONTHS IN PAST YEAR OF OPERATION THAT ONE BACTERIOLOGICAL SAMPLE WAS TAKEN. 5
NUMBER OF MONTHS WHEN THE BACTERIOLOGICAL LIMITS OF THE DWS WERE NOT MET. 5

CHEMICAL QUALITY
DWS MANDATORY LIMITS FAILED **Bacteriological Standard**
DWS RECOMMENDED LIMITS FAILED

SANITARY CONDITIONS
IS THE SOURCE PROTECTION ADEQUATE? YES ___ NO x

Surface drainage should be controlled

IS OPERATION AND CONTROL ADEQUATE? YES x NO ___

IS THE WATER SYSTEM CAPABLE OF DELIVERING A CONTINUOUS SUPPLY OF SAFE WATER WITHOUT MAJOR IMPROVEMENTS? YES ___ NO x

Water shortages are experienced.

PHYSICAL AND CHEMICAL RESULTS

ARSENIC (0.01)* <.005	FLUORIDE (1.4 to 2.4) ** .20	pH	7.8
(0.05)**	IRON (0.3)* .041	SELENIUM (0.01)**	<.005
BARIUM (1.0)** <.05	LEAD (0.05)** .000	SILVER (0.05)**	.000
CADMIUM (0.01)** .000	M.B.A.S. (0.5)* <.250	SULFATE (250)*	48.
CHLORIDE (250)* <10.	MANGANESE (0.05)* .000	TOTAL DISSOLVED SOLIDS (500)*	281.
CHROMIUM (.05)** .000	MERCURY <.0005	TURBIDITY (5 s.u.)*	.3
COLOR (15 s.u.)* 3	NITRATE (45)* 7.0	ZINC (5.0)*	.110
COPPER (1.0)* .000			

*RECOMMENDED LIMIT **MANDATORY LIMIT
ALL VALUES ARE MILLIGRAMS PER LITER UNLESS OTHERWISE NOTED.

BACTERIOLOGICAL RESULTS

	COLIFORM/100 ml	FECAL COLIFORM/100 ml
RAW WATER	80	12
DISTRIBUTION #1	0	0
DISTRIBUTION #2	3	0

REPORT ON INDIVIDUAL WATER SUPPLIES
U.S. FOREST SERVICE STUDY

NAME OF FOREST **Angeles National Forest** DATE OF SURVEY 7/20/73
NAME OF SUPPLY **Jackson Lake** STORAGE concrete tank
TREATMENT **none** SOURCE spring

BACTERIOLOGICAL QUALITY
NUMBER OF MONTHS IN PAST YEAR OF OPERATION THAT NO BACTERIOLOGICAL SAMPLES WERE TAKEN. 12
NUMBER OF MONTHS IN PAST YEAR OF OPERATION THAT ONE BACTERIOLOGICAL SAMPLE WAS TAKEN. 0
NUMBER OF MONTHS WHEN THE BACTERIOLOGICAL LIMITS OF THE DWS WERE NOT MET. 0

CHEMICAL QUALITY
DWS MANDATORY LIMITS FAILED
DWS RECOMMENDED LIMITS FAILED

SANITARY CONDITIONS
IS THE SOURCE PROTECTION ADEQUATE? YES ? NO ___

IS OPERATION AND CONTROL ADEQUATE? YES x NO ___

IS THE WATER SYSTEM CAPABLE OF DELIVERING A CONTINUOUS SUPPLY OF SAFE WATER WITHOUT MAJOR IMPROVEMENTS? YES x NO ___

PHYSICAL AND CHEMICAL RESULTS

ARSENIC (0.01)* <.005	FLUORIDE (1.4 to 2.4) ** .10	pH	7.4
(0.05)**	IRON (0.3)* .015	SELENIUM (0.01)**	<.005
BARIUM (1.0)** .05	LEAD (0.05)** .000	SILVER (0.05)**	.000
CADMIUM (0.01)** .000	M.B.A.S. (0.5)* <.250	SULFATE (250)*	<25.
CHLORIDE (250)* <10.	MANGANESE (0.05)* .000	TOTAL DISSOLVED SOLIDS (500)*	78.
CHROMIUM (.05)** .000	MERCURY <.0005	TURBIDITY (5 s.u.)*	.3
COLOR (15 s.u.)*2	NITRATE (45)* 1.0	ZINC (5.0)*	1.500
COPPER (1.0)* .025			

*RECOMMENDED LIMIT **MANDATORY LIMIT
ALL VALUES ARE MILLIGRAMS PER LITER UNLESS OTHERWISE NOTED.

BACTERIOLOGICAL RESULTS

	COLIFORM/100 ml	FECAL COLIFORM/100 ml
RAW WATER		
DISTRIBUTION #1	0	0
DISTRIBUTION #2	0	0

REPORT ON INDIVIDUAL WATER SUPPLIES
U.S. FOREST SERVICE STUDY

NAME OF FOREST **Angeles National Forest** DATE OF SURVEY 7/20/73
NAME OF SUPPLY **Big Pines Station** STORAGE **Concrete tank**
TREATMENT **none** SOURCE **Well**

BACTERIOLOGICAL QUALITY
NUMBER OF MONTHS IN PAST YEAR OF OPERATION THAT NO BACTERIOLOGICAL SAMPLES WERE TAKEN. 7
NUMBER OF MONTHS IN PAST YEAR OF OPERATION THAT ONE BACTERIOLOGICAL SAMPLE WAS TAKEN. 5
NUMBER OF MONTHS WHEN THE BACTERIOLOGICAL LIMITS OF THE DWS WERE NOT MET. 0

CHEMICAL QUALITY
DWS MANDATORY LIMITS FAILED
DWS RECOMMENDED LIMITS FAILED

SANITARY CONDITIONS
IS THE SOURCE PROTECTION ADEQUATE? YES x NO ___

IS OPERATION AND CONTROL ADEQUATE? YES x NO ___

IS THE WATER SYSTEM CAPABLE OF DELIVERING A CONTINUOUS SUPPLY OF SAFE WATER WITHOUT MAJOR IMPROVEMENTS? YES x NO ___

PHYSICAL AND CHEMICAL RESULTS

ARSENIC (0.01)* (0.05)**	<.005	FLUORIDE (1.4 to 2.4) **	.30	pH	7.6
BARIUM (1.0)**	<.05	IRON (0.3)*	.023	SELENIUM (0.01)**	<.005
CADMIUM (0.01)**	.000	LEAD (0.05)**	.000	SILVER (0.05)**	.000
CHLORIDE (250)*	<10.	M.B.A.S. (0.5)*	<.250	SULFATE (250)*	<25.
CHROMIUM (.05)**	.000	MANGANESE (0.05)*	.000	TOTAL DISSOLVED SOLIDS (500)*	217.
COLOR (15 s.u.)*	1	MERCURY	<.0005	TURBIDITY (5 s.u.)*	.1
COPPER (1.0)*	.031	NITRATE (45)*	<1.0	ZINC (5.0)*	.150

*RECOMMENDED LIMIT **MANDATORY LIMIT
ALL VALUES ARE MILLIGRAMS PER LITER UNLESS OTHERWISE NOTED.

BACTERIOLOGICAL RESULTS

	COLIFORM/100 ml	FECAL COLIFORM/100 ml
RAW WATER		
DISTRIBUTION #1	0	0
DISTRIBUTION #2	0	0

REPORT ON INDIVIDUAL WATER SUPPLIES
U.S. FOREST SERVICE STUDY

NAME OF FOREST **Angeles National Forest** DATE OF SURVEY 7/16/73
NAME OF SUPPLY **Switzer** STORAGE **steel tank**
TREATMENT **none** SOURCE **spring (and well)**

BACTERIOLOGICAL QUALITY
NUMBER OF MONTHS IN PAST YEAR OF OPERATION THAT NO BACTERIOLOGICAL SAMPLES WERE TAKEN. 3
NUMBER OF MONTHS IN PAST YEAR OF OPERATION THAT ONE BACTERIOLOGICAL SAMPLE WAS TAKEN. 9
NUMBER OF MONTHS WHEN THE BACTERIOLOGICAL LIMITS OF THE DWS WERE NOT MET. 1

CHEMICAL QUALITY
DWS MANDATORY LIMITS FAILED
DWS RECOMMENDED LIMITS FAILED

SANITARY CONDITIONS
IS THE SOURCE PROTECTION ADEQUATE? YES ___ NO x
Protection of the spring is questionable.

IS OPERATION AND CONTROL ADEQUATE? YES x NO ___

IS THE WATER SYSTEM CAPABLE OF DELIVERING A CONTINUOUS SUPPLY OF SAFE WATER WITHOUT MAJOR IMPROVEMENTS? YES x NO ___

PHYSICAL AND CHEMICAL RESULTS

ARSENIC (0.01)* (0.05)**	<.005	FLUORIDE (1.4 to 2.4) **	.60	pH	8.0
BARIUM (1.0)**	<.05	IRON (0.3)*	.019	SELENIUM (0.01)**	<.005
CADMIUM (0.01)**	<.000	LEAD (0.05)**	.000	SILVER (0.05)**	.000
CHLORIDE (250)*	<10.	M.B.A.S. (0.5)*	<.250	SULFATE (250)*	<.25
CHROMIUM (.05)**	.000	MANGANESE (0.05)*	.000	TOTAL DISSOLVED SOLIDS (500)*	190.
COLOR (15 s.u.)*2		MERCURY	.0005	TURBIDITY (5 s.u.)*	.1
COPPER (1.0)*	.001	NITRATE (45)*	3.0	ZINC (5.0)*	.150

*RECOMMENDED LIMIT **MANDATORY LIMIT
ALL VALUES ARE MILLIGRAMS PER LITER UNLESS OTHERWISE NOTED.

BACTERIOLOGICAL RESULTS

	COLIFORM/100 ml	FECAL COLIFORM/100 ml
RAW WATER		
DISTRIBUTION #1	0	0
DISTRIBUTION #2	0	0

REPORT ON INDIVIDUAL WATER SUPPLIES
U.S. FOREST SERVICE STUDY

NAME OF FOREST **Angeles National Forest** DATE OF SURVEY **7/19/73**
NAME OF SUPPLY **Deer Flats Camp** STORAGE **steel tank**
TREATMENT **none** SOURCE **spring**

BACTERIOLOGICAL QUALITY
NUMBER OF MONTHS IN PAST YEAR OF OPERATION THAT NO BACTERIOLOGICAL SAMPLES WERE TAKEN. 6
NUMBER OF MONTHS IN PAST YEAR OF OPERATION THAT ONE BACTERIOLOGICAL SAMPLE WAS TAKEN. 6
NUMBER OF MONTHS WHEN THE BACTERIOLOGICAL LIMITS OF THE DWS WERE NOT MET. 0

CHEMICAL QUALITY
DWS MANDATORY LIMITS FAILED
DWS RECOMMENDED LIMITS FAILED

SANITARY CONDITIONS
IS THE SOURCE PROTECTION ADEQUATE? YES X NO ___

IS OPERATION AND CONTROL ADEQUATE? YES X NO ___

IS THE WATER SYSTEM CAPABLE OF DELIVERING A CONTINUOUS SUPPLY OF SAFE WATER WITHOUT MAJOR IMPROVEMENTS? YES ___ NO X

Pressure not adequate at all points in the distribution system.

PHYSICAL AND CHEMICAL RESULTS

ARSENIC (0.01)*	<.005	FLUORIDE (1.4 to 2.4) **	1.00	pH	7.7
(0.05)**				SELENIUM (0.01)**	<.005
BARIUM (1.0)**	<.05	IRON (0.3)*	.028	SILVER (0.05)**	.000
CADMIUM (0.01)**	.000	LEAD (0.05)**	.000	SULFATE (250)*	<25.
CHLORIDE (250)*	<10.	M.B.A.S. (0.5)*	.250	TOTAL DISSOLVED SOLIDS (500)*	169.
CHROMIUM (.05)**	.000	MANGANESE (0.05)*	.000		
COLOR (15 s.u.)*	2	MERCURY	<.0005	TURBIDITY (5 s.u.)*	.1
COPPER (1.0)*	.031	NITRATE (45)*	1.0	ZINC (5.0)*	.410

*RECOMMENDED LIMIT **MANDATORY LIMIT
ALL VALUES ARE MILLIGRAMS PER LITER UNLESS OTHERWISE NOTED.

BACTERIOLOGICAL RESULTS

	COLIFORM/100 ml	FECAL COLIFORM/100 ml
RAW WATER		
DISTRIBUTION #1	0	0
DISTRIBUTION #2	0	0

REPORT ON INDIVIDUAL WATER SUPPLIES
U.S. FOREST SERVICE STUDY

NAME OF FOREST **Angeles National Forest** DATE OF SURVEY **7/19/73**
NAME OF SUPPLY **Crystal Lake** STORAGE **steel and concrete reservoirs**
TREATMENT **none** SOURCE **springs**

BACTERIOLOGICAL QUALITY
NUMBER OF MONTHS IN PAST YEAR OF OPERATION THAT NO BACTERIOLOGICAL SAMPLES WERE TAKEN. 5
NUMBER OF MONTHS IN PAST YEAR OF OPERATION THAT ONE BACTERIOLOGICAL SAMPLE WAS TAKEN. 6
NUMBER OF MONTHS WHEN THE BACTERIOLOGICAL LIMITS OF THE DWS WERE NOT MET. 0

CHEMICAL QUALITY
DWS MANDATORY LIMITS FAILED
DWS RECOMMENDED LIMITS FAILED

SANITARY CONDITIONS
IS THE SOURCE PROTECTION ADEQUATE? YES X NO ___

IS OPERATION AND CONTROL ADEQUATE? YES X NO ___

IS THE WATER SYSTEM CAPABLE OF DELIVERING A CONTINUOUS SUPPLY OF SAFE WATER WITHOUT MAJOR IMPROVEMENTS? YES X NO ___

PHYSICAL AND CHEMICAL RESULTS

ARSENIC (0.01)*	<.005	FLUORIDE (1.4 to 2.4) **	.80	pH	7.8
(0.05)**				SELENIUM (0.01)**	<.005
BARIUM (1.0)**	.03	IRON (0.3)*	.015	SILVER (0.05)**	.000
CADMIUM (0.01)**	.000	LEAD (0.05)**	.000	SULFATE (250)*	<25.
CHLORIDE (250)*	<10.	M.B.A.S. (0.5)*	<.250	TOTAL DISSOLVED SOLIDS (500)*	116.
CHROMIUM (.05)**	.000	MANGANESE (0.05)*	.000		
COLOR (15 s.u.)*	2	MERCURY	<.0005	TURBIDITY (5 s.u.)*	.1
COPPER (1.0)*	.025	NITRATE (45)*	<1.0	ZINC (5.0)*	.280

*RECOMMENDED LIMIT **MANDATORY LIMIT
ALL VALUES ARE MILLIGRAMS PER LITER UNLESS OTHERWISE NOTED.

BACTERIOLOGICAL RESULTS

	COLIFORM/100 ml	FECAL COLIFORM/100 ml
RAW WATER		
DISTRIBUTION #1	0	0
DISTRIBUTION #2	0	0

REPORT ON INDIVIDUAL WATER SUPPLIES
U.S. FOREST SERVICE STUDY

NAME OF FOREST Cleveland National Forest
NAME OF SUPPLY San Luis Campground
TREATMENT chlorination
DATE OF SURVEY 7/16/73
STORAGE steel tank
SOURCE spring

BACTERIOLOGICAL QUALITY

NUMBER OF MONTHS IN PAST YEAR OF OPERATION THAT NO BACTERIOLOGICAL SAMPLES WERE TAKEN. 0

NUMBER OF MONTHS IN PAST YEAR OF OPERATION THAT ONE BACTERIOLOGICAL SAMPLE WAS TAKEN. 12

NUMBER OF MONTHS WHEN THE BACTERIOLOGICAL LIMITS OF THE DWS WERE NOT MET. 2

CHEMICAL QUALITY

DWS MANDATORY LIMITS FAILED

DWS RECOMMENDED LIMITS FAILED Color, Iron, Turbidity

SANITARY CONDITIONS

IS THE SOURCE PROTECTION ADEQUATE? YES x NO ___

IS OPERATION AND CONTROL ADEQUATE? YES ___ NO x

Chlorine residual should be checked daily and recorded.

IS THE WATER SYSTEM CAPABLE OF DELIVERING A CONTINUOUS SUPPLY OF SAFE WATER WITHOUT MAJOR IMPROVEMENTS? YES x NO ___

PHYSICAL AND CHEMICAL RESULTS

ARSENIC (0.01)*	<.005	FLUORIDE (1.4 to 2.4) **	.20	pH	7.2
(0.05)**		IRON (0.3)*	.900	SELENIUM (0.01)**	<.005
BARIUM (1.0)**	<.05	LEAD (0.05)**	.000	SILVER (0.05)**	.000
CADMIUM (0.01)**	.000	M.B.A.S. (0.5)*	<.250	SULFATE (250)*	43.
CHLORIDE (250)*	24.	MANGANESE (0.05)*	.014	TOTAL DISSOLVED SOLIDS (500)*	238.
CHROMIUM (.05)**	.000	MERCURY	<.0005	TURBIDITY (5 s.u.)*	9.0
COLOR (15 s.u.)*	45.	NITRATE (45)*	1.0	ZINC (5.0)*	1.400
COPPER (1.0)*	.000				

*RECOMMENDED LIMIT **MANDATORY LIMIT
ALL VALUES ARE MILLIGRAMS PER LITER UNLESS OTHERWISE NOTED.

BACTERIOLOGICAL RESULTS

	COLIFORM/100 ml	FECAL COLIFORM/100 ml
RAW WATER		
DISTRIBUTION #1	0	0
DISTRIBUTION #2	0	0

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REPORT ON INDIVIDUAL WATER SUPPLIES
U.S. FOREST SERVICE STUDY

NAME OF FOREST Cleveland National Forest
NAME OF SUPPLY Black Canyon C.G.
TREATMENT none
DATE OF SURVEY 7/16/73
STORAGE concrete tank
SOURCE well

BACTERIOLOGICAL QUALITY

NUMBER OF MONTHS IN PAST YEAR OF OPERATION THAT NO BACTERIOLOGICAL SAMPLES WERE TAKEN. 1

NUMBER OF MONTHS IN PAST YEAR OF OPERATION THAT ONE BACTERIOLOGICAL SAMPLE WAS TAKEN. 11

NUMBER OF MONTHS WHEN THE BACTERIOLOGICAL LIMITS OF THE DWS WERE NOT MET. 0

CHEMICAL QUALITY

DWS MANDATORY LIMITS FAILED

DWS RECOMMENDED LIMITS FAILED Color, Iron, Manganese, Total Dissolved Solids, Turbidity

SANITARY CONDITIONS

IS THE SOURCE PROTECTION ADEQUATE? YES x NO ___

IS OPERATION AND CONTROL ADEQUATE? YES x NO ___

IS THE WATER SYSTEM CAPABLE OF DELIVERING A CONTINUOUS SUPPLY OF SAFE WATER WITHOUT MAJOR IMPROVEMENTS? YES x NO ___

PHYSICAL AND CHEMICAL RESULTS

ARSENIC (0.01)*	<.005	FLUORIDE (1.4 to 2.4) **	.20	pH	7.2
(0.05)**		IRON (0.3)*	1.900	SELENIUM (0.01)**	<.005
BARIUM (1.0)**	.13	LEAD (0.05)**	.000	SILVER (0.05)**	.000
CADMIUM (0.01)**	.000	M.B.A.S. (0.5)*	<.250	SULFATE (250)*	71.
CHLORIDE (250)*	40.	MANGANESE (0.05)*	.081	TOTAL DISSOLVED SOLIDS (500)*	535
CHROMIUM (.05)**	.000	MERCURY	<.0005	TURBIDITY (5 s.u.)*	21.0
COLOR (15 s.u.)*	30	NITRATE (45)*	<1.0	ZINC (5.0)*	.260
COPPER (1.0)*	.014				

*RECOMMENDED LIMIT **MANDATORY LIMIT
ALL VALUES ARE MILLIGRAMS PER LITER UNLESS OTHERWISE NOTED.

BACTERIOLOGICAL RESULTS

	COLIFORM/100 ml	FECAL COLIFORM/100 ml
RAW WATER		
DISTRIBUTION #1	0	0
DISTRIBUTION #2	0	0

REPORT ON INDIVIDUAL WATER SUPPLIES
U.S. FOREST SERVICE STUDY

NAME OF FOREST Cleveland National Forest
NAME OF SUPPLY Tenaja Station
TREATMENT Chlorination
DATE OF SURVEY 7/17/73
STORAGE redwood tank
SOURCE well

BACTERIOLOGICAL QUALITY

NUMBER OF MONTHS IN PAST YEAR OF OPERATION THAT NO BACTERIOLOGICAL SAMPLES WERE TAKEN. 11
NUMBER OF MONTHS IN PAST YEAR OF OPERATION THAT ONE BACTERIOLOGICAL SAMPLE WAS TAKEN. 1
NUMBER OF MONTHS WHEN THE BACTERIOLOGICAL LIMITS OF THE DWS WERE NOT MET. 6

CHEMICAL QUALITY

DWS MANDATORY LIMITS FAILED
DWS RECOMMENDED LIMITS FAILED

SANITARY CONDITIONS

IS THE SOURCE PROTECTION ADEQUATE? YES ___ NO x

Well located close to cattle feed area

IS OPERATION AND CONTROL ADEQUATE? YES ___ NO x

Chlorine residual not checked daily and recorded. No chlorine residual in distribution system at time of survey.

IS THE WATER SYSTEM CAPABLE OF DELIVERING A CONTINUOUS SUPPLY OF SAFE WATER WITHOUT MAJOR IMPROVEMENTS? YES ___ NO x

System is too close to sources of pollution. Pressure is not adequate in distribution system.

PHYSICAL AND CHEMICAL RESULTS

ARSENIC (0.01)* <.005 (0.05)**		FLUORIDE (1.4 to 2.4) **	.30	pH	7.2
BARIUM (1.0)** <.05		IRON (0.3)*	.060	SELENIUM (0.01)**	.005
CADMIUM (0.01)**	.000	LEAD (0.05)**	.000	SILVER (0.05)**	.000
CHLORIDE (250)*	44	M.B.A.S. (0.5)*	<.250	SULFATE (250)*	<25.
CHROMIUM (.05)**	.000	MANGANESE (0.05)*	.000	TOTAL DISSOLVED SOLIDS (500)*	304.
COLOR (15 s.u.)*	3	MERCURY	.0009	TURBIDITY (5 s.u.)*	.2
COPPER (1.0)*	.014	NITRATE (45)*	25.0	ZINC (5.0)*	.570

*RECOMMENDED LIMIT **MANDATORY LIMIT
ALL VALUES ARE MILLIGRAMS PER LITER UNLESS OTHERWISE NOTED.

BACTERIOLOGICAL RESULTS

	COLIFORM/100 ml	FECAL COLIFORM/100 ml
RAW WATER		
DISTRIBUTION #1	0	0
DISTRIBUTION #2	0	0

REPORT ON INDIVIDUAL WATER SUPPLIES
U.S. FOREST SERVICE STUDY

NAME OF FOREST Cleveland National Forest
NAME OF SUPPLY Indian Flats
TREATMENT none
DATE OF SURVEY 7/17/73
STORAGE underground tank
SOURCE spring

BACTERIOLOGICAL QUALITY

NUMBER OF MONTHS IN PAST YEAR OF OPERATION THAT NO BACTERIOLOGICAL SAMPLES WERE TAKEN. 0
NUMBER OF MONTHS IN PAST YEAR OF OPERATION THAT ONE BACTERIOLOGICAL SAMPLE WAS TAKEN. 11
NUMBER OF MONTHS WHEN THE BACTERIOLOGICAL LIMITS OF THE DWS WERE NOT MET. 1

CHEMICAL QUALITY

DWS MANDATORY LIMITS FAILED
DWS RECOMMENDED LIMITS FAILED

SANITARY CONDITIONS

IS THE SOURCE PROTECTION ADEQUATE? YES x NO ___

IS OPERATION AND CONTROL ADEQUATE? YES x NO ___

IS THE WATER SYSTEM CAPABLE OF DELIVERING A CONTINUOUS SUPPLY OF SAFE WATER WITHOUT MAJOR IMPROVEMENTS? YES ___ NO x

Pressure not adequate at all points in the distribution system.

PHYSICAL AND CHEMICAL RESULTS

ARSENIC (0.01)* <.005 (0.05)**		FLUORIDE (1.4 to 2.4) **	.50	pH	7.4
BARIUM (1.0)** <.05		IRON (0.3)*	.028	SELENIUM (0.01)**	<.005
CADMIUM (0.01)**	.000	LEAD (0.05)**	.000	SILVER (0.05)**	.000
CHLORIDE (250)*	19.	M.B.A.S. (0.5)*	<.250	SULFATE (250)*	40.
CHROMIUM (.05)**	.000	MANGANESE (0.05)*	.000	TOTAL DISSOLVED SOLIDS (500)*	207.
COLOR (15 s.u.)*	2	MERCURY	.0009	TURBIDITY (5 s.u.)*	.2
COPPER (1.0)*	.025	NITRATE (45)*	<1.0	ZINC (5.0)*	1.900

*RECOMMENDED LIMIT **MANDATORY LIMIT
ALL VALUES ARE MILLIGRAMS PER LITER UNLESS OTHERWISE NOTED.

BACTERIOLOGICAL RESULTS

	COLIFORM/100 ml	FECAL COLIFORM/100 ml
RAW WATER		
DISTRIBUTION #1	0	0
DISTRIBUTION #2	0	0

REPORT ON INDIVIDUAL WATER SUPPLIES
U.S. FOREST SERVICE STUDY

NAME OF FOREST Cleveland National Forest
NAME OF SUPPLY Oasis Spring
TREATMENT none
DATE OF SURVEY 7/18/73
STORAGE underground concrete tank
SOURCE springs

BACTERIOLOGICAL QUALITY
NUMBER OF MONTHS IN PAST YEAR OF OPERATION THAT NO BACTERIOLOGICAL SAMPLES WERE TAKEN. 12
NUMBER OF MONTHS IN PAST YEAR OF OPERATION THAT ONE BACTERIOLOGICAL SAMPLE WAS TAKEN. 0
NUMBER OF MONTHS WHEN THE BACTERIOLOGICAL LIMITS OF THE DWS WERE NOT MET. 0

CHEMICAL QUALITY
DWS MANDATORY LIMITS FAILED
DWS RECOMMENDED LIMITS FAILED

SANITARY CONDITIONS
IS THE SOURCE PROTECTION ADEQUATE? YES ___ NO x
Collection box not properly sealed. Collection tank vent should have a screen.
IS OPERATION AND CONTROL ADEQUATE? YES x NO ___

IS THE WATER SYSTEM CAPABLE OF DELIVERING A CONTINUOUS SUPPLY OF SAFE WATER WITHOUT MAJOR IMPROVEMENTS? YES ___ NO x
Source protection needs much improvement.

PHYSICAL AND CHEMICAL RESULTS

ARSENIC (0.01)*	<.0005	FLUORIDE (1.4 to 2.4) **	.10	pH	8.2
(0.05)**		IRON (0.3)*	.090	SELENIUM (0.01)**	<.005
BARIUM (1.0)**	<.05	LEAD (0.05)**	.000	SILVER (0.05)**	.000
CADMIUM (0.01)**	.000	M.B.A.S. (0.5)*	<.250	SULFATE (250)*	34.
CHLORIDE (250)*	21.	MANGANESE (0.05)*	.000	TOTAL DISSOLVED SOLIDS (500)*	259.
CHROMIUM (.05)**	.000	MERCURY	<.0005	TURBIDITY (5 s.u.)*	.6
COLOR (15 s.u.)*	3	NITRATE (45)*	<1.0	ZINC (5.0)*	.110
COPPER (1.0)*	.000				

*RECOMMENDED LIMIT **MANDATORY LIMIT
ALL VALUES ARE MILLIGRAMS PER LITER UNLESS OTHERWISE NOTED.

BACTERIOLOGICAL RESULTS

	COLIFORM/100 ml	FECAL COLIFORM/100 ml
RAW WATER		
DISTRIBUTION #1	0	0
DISTRIBUTION #2	0	0

REPORT ON INDIVIDUAL WATER SUPPLIES
U.S. FOREST SERVICE STUDY

NAME OF FOREST Cleveland National Forest
NAME OF SUPPLY Cuiapipe System
TREATMENT none
DATE OF SURVEY 7/18/73
STORAGE concrete tank
SOURCE well

BACTERIOLOGICAL QUALITY
NUMBER OF MONTHS IN PAST YEAR OF OPERATION THAT NO BACTERIOLOGICAL SAMPLES WERE TAKEN. 12
NUMBER OF MONTHS IN PAST YEAR OF OPERATION THAT ONE BACTERIOLOGICAL SAMPLE WAS TAKEN. 0
NUMBER OF MONTHS WHEN THE BACTERIOLOGICAL LIMITS OF THE DWS WERE NOT MET. 0

CHEMICAL QUALITY
DWS MANDATORY LIMITS FAILED
DWS RECOMMENDED LIMITS FAILED

SANITARY CONDITIONS
IS THE SOURCE PROTECTION ADEQUATE? YES x NO ___

IS OPERATION AND CONTROL ADEQUATE? YES x NO ___

IS THE WATER SYSTEM CAPABLE OF DELIVERING A CONTINUOUS SUPPLY OF SAFE WATER WITHOUT MAJOR IMPROVEMENTS? YES x NO ___

PHYSICAL AND CHEMICAL RESULTS

ARSENIC (0.01)*	<.005	FLUORIDE (1.4 to 2.4) **	.10	pH	7.6
(0.05)**		IRON (0.3)*	.010	SELENIUM (0.01)**	<.005
BARIUM (1.0)**	<.05	LEAD (0.05)**	.000	SILVER (0.05)**	.000
CADMIUM (0.01)**	.000	M.B.A.S. (0.5)*	<.250	SULFATE (250)*	<25.
CHLORIDE (250)*	13.	MANGANESE (0.05)*	.003	TOTAL DISSOLVED SOLIDS (500)*	216.
CHROMIUM (.05)**	.000	MERCURY	<.0005	TURBIDITY (5 s.u.)*	.1
COLOR (15 s.u.)*	2	NITRATE (45)*	2.0	ZINC (5.0)*	.180
COPPER (1.0)*	.000				

*RECOMMENDED LIMIT **MANDATORY LIMIT
ALL VALUES ARE MILLIGRAMS PER LITER UNLESS OTHERWISE NOTED.

BACTERIOLOGICAL RESULTS

	COLIFORM/100 ml	FECAL COLIFORM/100 ml
RAW WATER		
DISTRIBUTION #1	0	0
DISTRIBUTION #2	0	0

U.S. FOREST SERVICE STUDY

NAME OF FOREST Cleveland National Forest
NAME OF SUPPLY Pine Hills Station
TREATMENT none

DATE OF SURVEY 7/19/73
STORAGE redwood tank
SOURCE well

BACTERIOLOGICAL QUALITY

NUMBER OF MONTHS IN PAST YEAR OF OPERATION THAT NO BACTERIOLOGICAL SAMPLES WERE TAKEN. 8

NUMBER OF MONTHS IN PAST YEAR OF OPERATION THAT ONE BACTERIOLOGICAL SAMPLE WAS TAKEN. 4

NUMBER OF MONTHS WHEN THE BACTERIOLOGICAL LIMITS OF THE DWS WERE NOT MET. 0

CHEMICAL QUALITY

DWS MANDATORY LIMITS FAILED

DWS RECOMMENDED LIMITS FAILED Iron, Manganese

SANITARY CONDITIONS

IS THE SOURCE PROTECTION ADEQUATE? YES ___ NO x

Oil from the pump enters the well.

IS OPERATION AND CONTROL ADEQUATE? YES ___ NO x

Pump needs repair.

IS THE WATER SYSTEM CAPABLE OF DELIVERING A CONTINUOUS SUPPLY OF SAFE WATER WITHOUT MAJOR IMPROVEMENTS? YES ___ NO x

Source protection needs much improvement.

PHYSICAL AND CHEMICAL RESULTS

ARSENIC (0.01)*	<.005	FLUORIDE (1.4 to 2.4) **	1.00	pH	7.4
(0.05)**				SELENIUM (0.01)**	<.005
BARIUM (1.0)**	<.05	IRON (0.3)*	.400	SILVER (0.05)**	.000
CADMIUM (0.01)**	.000	LEAD (0.05)**	.000	SULFATE (250)*	39.
CHLORIDE (250)*	20.	M.B.A.S. (0.5)*	<.250	TOTAL DISSOLVED SOLIDS (500)*	236.
CHROMIUM (.05)**	.000	MANGANESE (0.05)*	.065		
COLOR (15 s.u.)*	3	MERCURY	.0005	TURBIDITY (5 s.u.)*	4.0
COPPER (1.0)*	.003	NITRATE (45)*	1.0	ZINC (5.0)*	1.400

*RECOMMENDED LIMIT **MANDATORY LIMIT
ALL VALUES ARE MILLIGRAMS PER LITER UNLESS OTHERWISE NOTED.

BACTERIOLOGICAL RESULTS

	COLIFORM/100 ml	FECAL COLIFORM/100 ml
RAW WATER		
DISTRIBUTION #1	Colony Growth Confluent	
DISTRIBUTION #2		

REPORT ON INDIVIDUAL WATER SUPPLIES
U.S. FOREST SERVICE STUDY

NAME OF FOREST Cleveland National Forest
NAME OF SUPPLY Alpine Station
TREATMENT none

DATE OF SURVEY 7/19/73
STORAGE pressure tank
SOURCE well

BACTERIOLOGICAL QUALITY

NUMBER OF MONTHS IN PAST YEAR OF OPERATION THAT NO BACTERIOLOGICAL SAMPLES WERE TAKEN. 2

NUMBER OF MONTHS IN PAST YEAR OF OPERATION THAT ONE BACTERIOLOGICAL SAMPLE WAS TAKEN. 10

NUMBER OF MONTHS WHEN THE BACTERIOLOGICAL LIMITS OF THE DWS WERE NOT MET. 0

CHEMICAL QUALITY

DWS MANDATORY LIMITS FAILED

DWS RECOMMENDED LIMITS FAILED Total Dissolved Solids

SANITARY CONDITIONS

IS THE SOURCE PROTECTION ADEQUATE? YES x NO ___

IS OPERATION AND CONTROL ADEQUATE? YES x NO ___

IS THE WATER SYSTEM CAPABLE OF DELIVERING A CONTINUOUS SUPPLY OF SAFE WATER WITHOUT MAJOR IMPROVEMENTS? YES x NO ___

PHYSICAL AND CHEMICAL RESULTS

ARSENIC (0.01)*	<.005	FLUORIDE (1.4 to 2.4) **	.10	pH	7.2
(0.05)**				SELENIUM (0.01)**	<.005
BARIUM (1.0)**	.10	IRON (0.3)*	.019	SILVER (0.05)**	.000
CADMIUM (0.01)**	.014	LEAD (0.05)**	.002	SULFATE (250)*	64.
CHLORIDE (250)*	85.	M.B.A.S. (0.5)*	<.250	TOTAL DISSOLVED SOLIDS (500)*	501.
CHROMIUM (.05)**	.000	MANGANESE (0.05)*	.007		
COLOR (15 s.u.)*	3	MERCURY	<.0005	TURBIDITY (5 s.u.)*	.2
COPPER (1.0)*	.000	NITRATE (45)*	10.0	ZINC (5.0)*	3.800

*RECOMMENDED LIMIT **MANDATORY LIMIT
ALL VALUES ARE MILLIGRAMS PER LITER UNLESS OTHERWISE NOTED.

BACTERIOLOGICAL RESULTS

	COLIFORM/100 ml	FECAL COLIFORM/100 ml
RAW WATER		
DISTRIBUTION #1	0	0
DISTRIBUTION #2	0	0

REPORT ON INDIVIDUAL WATER SUPPLIES
U.S. FOREST SERVICE STUDY

NAME OF FOREST Cleveland National Forest
NAME OF SUPPLY Oak Grove Station
TREATMENT none
DATE OF SURVEY 7/20/73
STORAGE steel tanks & pressure tank
SOURCE wells

BACTERIOLOGICAL QUALITY
NUMBER OF MONTHS IN PAST YEAR OF OPERATION THAT NO BACTERIOLOGICAL SAMPLES WERE TAKEN. 1
NUMBER OF MONTHS IN PAST YEAR OF OPERATION THAT ONE BACTERIOLOGICAL SAMPLE WAS TAKEN. 11
NUMBER OF MONTHS WHEN THE BACTERIOLOGICAL LIMITS OF THE DWS WERE NOT MET. 0

CHEMICAL QUALITY
DWS MANDATORY LIMITS FAILED Bacteriological Standard
DWS RECOMMENDED LIMITS FAILED Total Dissolved Solids

SANITARY CONDITIONS
IS THE SOURCE PROTECTION ADEQUATE? YES x NO ___

IS OPERATION AND CONTROL ADEQUATE? YES x NO ___

IS THE WATER SYSTEM CAPABLE OF DELIVERING A CONTINUOUS SUPPLY OF SAFE WATER WITHOUT MAJOR IMPROVEMENTS? YES x NO ___

PHYSICAL AND CHEMICAL RESULTS

ARSENIC (0.01)*	<.005	FLUORIDE (1.4 to 2.4) **	.30	pH	7.6
(0.05)**				SELENIUM (0.01)**	<.005
BARIUM (1.0)**	.10	IRON (0.3)*	.110	SILVER (0.05)**	.000
CADMIUM (0.01)**	.000	LEAD (0.05)**	.020	SULFATE (250)*	128.
CHLORIDE (250)*	56.	M.B.A.S. (0.5)*	<.250	TOTAL DISSOLVED SOLIDS (500)*	585.
CHROMIUM (.05)**	.000	MANGANESE (0.05)*	.007		
COLOR (15 s.u.)*	3	MERCURY	<.0005	TURBIDITY (5 s.u.)*	.3
COPPER (1.0)*	.031	NITRATE (45)*	20.0	ZINC (5.0)*	330.

*RECOMMENDED LIMIT **MANDATORY LIMIT
ALL VALUES ARE MILLIGRAMS PER LITER UNLESS OTHERWISE NOTED.

BACTERIOLOGICAL RESULTS

	COLIFORM/100 ml	FECAL COLIFORM/100 ml
RAW WATER		
DISTRIBUTION #1	10	0
DISTRIBUTION #2	0	0

REPORT ON INDIVIDUAL WATER SUPPLIES
U.S. FOREST SERVICE STUDY

NAME OF FOREST Cleveland National Forest
NAME OF SUPPLY Dripping Springs Station
TREATMENT none
DATE OF SURVEY 7/20/73
STORAGE underground concrete tank
SOURCE well

BACTERIOLOGICAL QUALITY
NUMBER OF MONTHS IN PAST YEAR OF OPERATION THAT NO BACTERIOLOGICAL SAMPLES WERE TAKEN. 2
NUMBER OF MONTHS IN PAST YEAR OF OPERATION THAT ONE BACTERIOLOGICAL SAMPLE WAS TAKEN. 10
NUMBER OF MONTHS WHEN THE BACTERIOLOGICAL LIMITS OF THE DWS WERE NOT MET. 0

CHEMICAL QUALITY
DWS MANDATORY LIMITS FAILED
DWS RECOMMENDED LIMITS FAILED - Total Dissolved Solids, Zinc

SANITARY CONDITIONS
IS THE SOURCE PROTECTION ADEQUATE? YES x NO ___

IS OPERATION AND CONTROL ADEQUATE? YES x NO ___

IS THE WATER SYSTEM CAPABLE OF DELIVERING A CONTINUOUS SUPPLY OF SAFE WATER WITHOUT MAJOR IMPROVEMENTS? YES x NO ___

PHYSICAL AND CHEMICAL RESULTS

ARSENIC (0.01)*	<.005	FLUORIDE (1.4 to 2.4) **	.50	pH	7.7
(0.05)**				SELENIUM (0.01)**	<.005
BARIUM (1.0)**	.16	IRON (0.3)*	.170	SILVER (0.05)**	.000
CADMIUM (0.01)**	.000	LEAD (0.05)**	.020	SULFATE (250)*	96.
CHLORIDE (250)*	60.	M.B.A.S. (0.5)*	<.250	TOTAL DISSOLVED SOLIDS (500)*	502.
CHROMIUM (.05)**	.000	MANGANESE (0.05)*	.012		
COLOR (15 s.u.)*	3	MERCURY	<.0005	TURBIDITY (5 s.u.)*	.4
COPPER (1.0)*	.000	NITRATE (45)*	4.0	ZINC (5.0)*	5.400

*RECOMMENDED LIMIT **MANDATORY LIMIT
ALL VALUES ARE MILLIGRAMS PER LITER UNLESS OTHERWISE NOTED.

BACTERIOLOGICAL RESULTS

	COLIFORM/100 ml	FECAL COLIFORM/100 ml
RAW WATER		
DISTRIBUTION #1	0	0
DISTRIBUTION #2	0	0

REPORT ON INDIVIDUAL WATER SUPPLIES
U.S. FOREST SERVICE STUDY

NAME OF FOREST Shasta-Trinity National Forest DATE OF SURVEY 7/26/73
NAME OF SUPPLY Stoney Swim and Fawn Camp STORAGE redwood tanks
TREATMENT chlorination SOURCE well

BACTERIOLOGICAL QUALITY
NUMBER OF MONTHS IN PAST YEAR OF OPERATION THAT NO BACTERIOLOGICAL SAMPLES WERE TAKEN. 0
NUMBER OF MONTHS IN PAST YEAR OF OPERATION THAT ONE BACTERIOLOGICAL SAMPLE WAS TAKEN. 2
NUMBER OF MONTHS WHEN THE BACTERIOLOGICAL LIMITS OF THE DWS WERE NOT MET. 0

CHEMICAL QUALITY
DWS MANDATORY LIMITS FAILED
DWS RECOMMENDED LIMITS FAILED

SANITARY CONDITIONS
IS THE SOURCE PROTECTION ADEQUATE? YES x NO ___

IS OPERATION AND CONTROL ADEQUATE? YES ___ NO x
Chlorine residual not checked daily.

IS THE WATER SYSTEM CAPABLE OF DELIVERING A CONTINUOUS SUPPLY OF SAFE WATER WITHOUT MAJOR IMPROVEMENTS? YES x NO ___

PHYSICAL AND CHEMICAL RESULTS

ARSENIC (0.01)* (0.05)**	<.005	FLUORIDE (1.4 to 2.4) **	<.10	pH	8.0
BARIUM (1.0)**	<.05	IRON (0.3)*	.024	SELENIUM (0.01)**	<.005
CADMIUM (0.01)**	.000	LEAD (0.05)**	.000	SILVER (0.05)**	.000
CHLORIDE (250)*	<10.	M.B.A.S. (0.5)*	<.250	SULFATE (250)*	<25.
CHROMIUM (.05)**	.000	MANGANESE (0.05)*	.000	TOTAL DISSOLVED SOLIDS (500)*	138.
COLOR (15 s.u.)*	2	MERCURY	.0008	TURBIDITY (5 s.u.)*	.1
COPPER (1.0)*	.000	NITRATE (45)*	<1.0	ZINC (5.0)*	.130

*RECOMMENDED LIMIT **MANDATORY LIMIT
ALL VALUES ARE MILLIGRAMS PER LITER UNLESS OTHERWISE NOTED.

BACTERIOLOGICAL RESULTS

	COLIFORM/100 ml	FECAL COLIFORM/100 ml
RAW WATER		
DISTRIBUTION #1	0	0
DISTRIBUTION #2	1	0

REPORT ON INDIVIDUAL WATER SUPPLIES
U.S. FOREST SERVICE STUDY

NAME OF FOREST Shasta-Trinity National Forest DATE OF SURVEY 7/25/73
NAME OF SUPPLY Antlers STORAGE Underground concrete tank
TREATMENT Chlorination SOURCE and pressure tank Lake

BACTERIOLOGICAL QUALITY
NUMBER OF MONTHS IN PAST YEAR OF OPERATION THAT NO BACTERIOLOGICAL SAMPLES WERE TAKEN. 3
NUMBER OF MONTHS IN PAST YEAR OF OPERATION THAT ONE BACTERIOLOGICAL SAMPLE WAS TAKEN. 3
NUMBER OF MONTHS WHEN THE BACTERIOLOGICAL LIMITS OF THE DWS WERE NOT MET. 1

CHEMICAL QUALITY
DWS MANDATORY LIMITS FAILED Bacteriological Standard
DWS RECOMMENDED LIMITS FAILED Iron, Manganese

SANITARY CONDITIONS
IS THE SOURCE PROTECTION ADEQUATE? YES x NO ___

IS OPERATION AND CONTROL ADEQUATE? YES ___ NO x
Chlorine residual not checked daily. No chlorine residual on day of survey.

IS THE WATER SYSTEM CAPABLE OF DELIVERING A CONTINUOUS SUPPLY OF SAFE WATER WITHOUT MAJOR IMPROVEMENTS? YES ___ NO x

Drain on storage tank should be screened.

PHYSICAL AND CHEMICAL RESULTS

ARSENIC (0.01)* (0.05)**	<.005	FLUORIDE (1.4 to 2.4) **	<.10	pH	7.4
BARIUM (1.0)**	<.05	IRON (0.3)*	.600	SELENIUM (0.01)**	<.005
CADMIUM (0.01)**	.000	LEAD (0.05)**	.000	SILVER (0.05)**	.000
CHLORIDE (250)*	<10.	M.B.A.S. (0.5)*	<.250	SULFATE (250)*	<25.
CHROMIUM (.05)**	.000	MANGANESE (0.05)*	.140	TOTAL DISSOLVED SOLIDS (500)*	65.
COLOR (15 s.u.)*	3	MERCURY	<.0005	TURBIDITY (5 s.u.)*	.4
COPPER (1.0)*	.000	NITRATE (45)*	<1.0	ZINC (5.0)*	1.400

*RECOMMENDED LIMIT **MANDATORY LIMIT
ALL VALUES ARE MILLIGRAMS PER LITER UNLESS OTHERWISE NOTED.

BACTERIOLOGICAL RESULTS

	COLIFORM/100 ml	FECAL COLIFORM/100 ml
RAW WATER		
DISTRIBUTION #1	3	0
DISTRIBUTION #2	1	0

REPORT ON INDIVIDUAL WATER SUPPLIES
U.S. FOREST SERVICE STUDY

NAME OF FOREST -Shasta-Trinity National Forest DATE OF SURVEY 7/26/73
NAME OF SUPPLY Pollard Flat STORAGE wood tanks
TREATMENT chlorination SOURCE stream

BACTERIOLOGICAL QUALITY
NUMBER OF MONTHS IN PAST YEAR OF OPERATION THAT NO BACTERIOLOGICAL SAMPLES WERE TAKEN. 6
NUMBER OF MONTHS IN PAST YEAR OF OPERATION THAT ONE BACTERIOLOGICAL SAMPLE WAS TAKEN. 0
NUMBER OF MONTHS WHEN THE BACTERIOLOGICAL LIMITS OF THE DWS WERE NOT MET. 0

CHEMICAL QUALITY
DWS MANDATORY LIMITS FAILED Bacteriological Standard
DWS RECOMMENDED LIMITS FAILED

SANITARY CONDITIONS
IS THE SOURCE PROTECTION ADEQUATE? YES x NO ___

IS OPERATION AND CONTROL ADEQUATE? YES ___ NO x

Chlorine residual should be checked daily. No chlorine residual on day of survey.

IS THE WATER SYSTEM CAPABLE OF DELIVERING A CONTINUOUS SUPPLY OF SAFE WATER WITHOUT MAJOR IMPROVEMENTS? YES x NO ___

PHYSICAL AND CHEMICAL RESULTS

ARSENIC (0.01)* <.005 (0.05)**	FLUORIDE (1.4 to 2.4) ** <.10	pH	7.7
BARIUM (1.0)** .05	IRON (0.3)* .024	SELENIUM (0.01)**	<.005
CADMIUM (0.01)** .000	LEAD (0.05)** .000	SILVER (0.05)**	.000
CHLORIDE (250)* <10.	M.B.A.S. (0.5)* <.250	SULFATE (250)*	<25.
CHROMIUM (.05)** .000	MANGANESE (0.05)* .000	TOTAL DISSOLVED SOLIDS (500)*	133.
COLOR (15 s.u.)* <5	MERCURY <.0005	TURBIDITY (5 s.u.)*	.3
COPPER (1.0)* .000	NITRATE (45)* <1.0	ZINC (5.0)*	.290

*RECOMMENDED LIMIT **MANDATORY LIMIT
ALL VALUES ARE MILLIGRAMS PER LITER UNLESS OTHERWISE NOTED.

BACTERIOLOGICAL RESULTS

	COLIFORM/100 ml	FECAL COLIFORM/100 ml
RAW WATER		
DISTRIBUTION #1	>33	2
DISTRIBUTION #2	0	0

REPORT ON INDIVIDUAL WATER SUPPLIES
U.S. FOREST SERVICE STUDY

NAME OF FOREST -Shasta-Trinity National Forest DATE OF SURVEY 7/26/73
NAME OF SUPPLY Lower Salt Creek STORAGE Pressure tank
TREATMENT none SOURCE well

BACTERIOLOGICAL QUALITY
NUMBER OF MONTHS IN PAST YEAR OF OPERATION THAT NO BACTERIOLOGICAL SAMPLES WERE TAKEN. 4
NUMBER OF MONTHS IN PAST YEAR OF OPERATION THAT ONE BACTERIOLOGICAL SAMPLE WAS TAKEN. 3
NUMBER OF MONTHS WHEN THE BACTERIOLOGICAL LIMITS OF THE DWS WERE NOT MET. 0

CHEMICAL QUALITY
DWS MANDATORY LIMITS FAILED
DWS RECOMMENDED LIMITS FAILED Iron, Manganese, Zinc

SANITARY CONDITIONS
IS THE SOURCE PROTECTION ADEQUATE? YES x NO ___

IS OPERATION AND CONTROL ADEQUATE? YES x NO ___

IS THE WATER SYSTEM CAPABLE OF DELIVERING A CONTINUOUS SUPPLY OF SAFE WATER WITHOUT MAJOR IMPROVEMENTS? YES x NO ___

PHYSICAL AND CHEMICAL RESULTS

ARSENIC (0.01)* <.005 (0.05)**	FLUORIDE (1.4 to 2.4) ** <.10	pH	6.8
BARIUM (1.0)** .12	IRON (0.3)* 1.200	SELENIUM (0.01)**	<.005
CADMIUM (0.01)** .005	LEAD (0.05)** .000	SILVER (0.05)**	.000
CHLORIDE (250)* <10.	M.B.A.S. (0.5)* <.250	SULFATE (250)*	<25.
CHROMIUM (.05)** .000	MANGANESE (0.05)* .069	TOTAL DISSOLVED SOLIDS (500)*	106.
COLOR (15 s.u.)* <5	MERCURY <.0005	TURBIDITY (5 s.u.)*	2.4
COPPER (1.0)* .000	NITRATE (45)* <1.0	ZINC (5.0)*	33

*RECOMMENDED LIMIT **MANDATORY LIMIT
ALL VALUES ARE MILLIGRAMS PER LITER UNLESS OTHERWISE NOTED.

BACTERIOLOGICAL RESULTS

	COLIFORM/100 ml	FECAL COLIFORM/100 ml
RAW WATER		
DISTRIBUTION #1	0	0
DISTRIBUTION #2	0	0

REPORT ON INDIVIDUAL WATER SUPPLIES
U.S. FOREST SERVICE STUDY

NAME OF FOREST -Shasta-Trinity National Forest DATE OF SURVEY 7/26/73
NAME OF SUPPLY Pine Cove STORAGE none
TREATMENT none SOURCE handpumped well

BACTERIOLOGICAL QUALITY
NUMBER OF MONTHS IN PAST YEAR OF OPERATION THAT NO BACTERIOLOGICAL SAMPLES WERE TAKEN. 5
NUMBER OF MONTHS IN PAST YEAR OF OPERATION THAT ONE BACTERIOLOGICAL SAMPLE WAS TAKEN. 5
NUMBER OF MONTHS WHEN THE BACTERIOLOGICAL LIMITS OF THE DWS WERE NOT MET. 2

CHEMICAL QUALITY
DWS MANDATORY LIMITS FAILED Bacteriological Standard
DWS RECOMMENDED LIMITS FAILED Iron, Manganese

SANITARY CONDITIONS
IS THE SOURCE PROTECTION ADEQUATE? YES ___ NO x
Well too close to cracked vault toilet.

IS OPERATION AND CONTROL ADEQUATE? YES x NO ___

IS THE WATER SYSTEM CAPABLE OF DELIVERING A CONTINUOUS SUPPLY OF SAFE WATER WITHOUT MAJOR IMPROVEMENTS? YES ___ NO x
Source protection is not adequate.

PHYSICAL AND CHEMICAL RESULTS

ARSENIC (0.01)*	<.005	FLUORIDE (1.4 to 2.4) **	<.10	pH	7.5
(0.05)**				SELENIUM (0.01)**	<.005
BARIUM (1.0)**	<.05	IRON (0.3)*	1.600	SILVER (0.05)**	.000
CADMIUM (0.01)**	.000	LEAD (0.05)**	.00	SULFATE (250)*	<25.
CHLORIDE (250)*	<10.	M.B.A.S. (0.5)*	<.250	TOTAL DISSOLVED SOLIDS (500)*	210.
CHROMIUM (.05)**	.000	MANGANESE (0.05)*	.140		
COLOR (15 s.u.)*	3	MERCURY	<.0005	TURBIDITY (5 s.u.)*	.4
COPPER (1.0)*	.000	NITRATE (45)*	2.0	ZINC (5.0)*	.940

*RECOMMENDED LIMIT **MANDATORY LIMIT
ALL VALUES ARE MILLIGRAMS PER LITER UNLESS OTHERWISE NOTED.

BACTERIOLOGICAL RESULTS

	COLIFORM/100 ml	FECAL COLIFORM/100 ml
RAW WATER		
DISTRIBUTION #1	15	0
DISTRIBUTION #2		

REPORT ON INDIVIDUAL WATER SUPPLIES
U.S. FOREST SERVICE STUDY

NAME OF FOREST -Shasta-Trinity National Forest DATE OF SURVEY 7/26/73
NAME OF SUPPLY Sims Camp STORAGE Wood tank
TREATMENT Chlorination, sand filtration SOURCE Stream

BACTERIOLOGICAL QUALITY
NUMBER OF MONTHS IN PAST YEAR OF OPERATION THAT NO BACTERIOLOGICAL SAMPLES WERE TAKEN. 6
NUMBER OF MONTHS IN PAST YEAR OF OPERATION THAT ONE BACTERIOLOGICAL SAMPLE WAS TAKEN. 0
NUMBER OF MONTHS WHEN THE BACTERIOLOGICAL LIMITS OF THE DWS WERE NOT MET. 0

CHEMICAL QUALITY
DWS MANDATORY LIMITS FAILED Bacteriological Standard
DWS RECOMMENDED LIMITS FAILED

SANITARY CONDITIONS
IS THE SOURCE PROTECTION ADEQUATE? YES ___ NO x
Intake too close to campground.

IS OPERATION AND CONTROL ADEQUATE? YES ___ NO x
Chlorine residual should be checked daily. No chlorine residual on day of survey.

IS THE WATER SYSTEM CAPABLE OF DELIVERING A CONTINUOUS SUPPLY OF SAFE WATER WITHOUT MAJOR IMPROVEMENTS? YES x NO ___

PHYSICAL AND CHEMICAL RESULTS

ARSENIC (0.01)*	<.005	FLUORIDE (1.4 to 2.4) **	<.10	pH	7.6
(0.05)**				SELENIUM (0.01)**	<.005
BARIUM (1.0)**	<.05	IRON (0.3)*	.024	SILVER (0.05)**	.000
CADMIUM (0.01)**	.000	LEAD (0.05)**	.000	SULFATE (250)*	<25.
CHLORIDE (250)*	<10.	M.B.A.S. (0.5)*	<.250	TOTAL DISSOLVED SOLIDS (500)*	90.
CHROMIUM (.05)**	.000	MANGANESE (0.05)*	.000		
COLOR (15 s.u.)*	3	MERCURY	<.0005	TURBIDITY (5 s.u.)*	.1
COPPER (1.0)*	.000	NITRATE (45)*	<1.0	ZINC (5.0)*	.058

*RECOMMENDED LIMIT **MANDATORY LIMIT
ALL VALUES ARE MILLIGRAMS PER LITER UNLESS OTHERWISE NOTED.

BACTERIOLOGICAL RESULTS

	COLIFORM/100 ml	FECAL COLIFORM/100 ml
RAW WATER		
DISTRIBUTION #1	34	0
DISTRIBUTION #2	47	0

REPORT ON INDIVIDUAL WATER SUPPLIES
U.S. FOREST SERVICE STUDY

NAME OF FOREST-Shasta-Trinity National Forest DATE OF SURVEY 7/25/73
NAME OF SUPPLY Salt Creek Swim STORAGE concrete tank
TREATMENT Chlorination, coagulation, sand and carbon filtration. SOURCE stream

BACTERIOLOGICAL QUALITY
NUMBER OF MONTHS IN PAST YEAR OF OPERATION THAT NO BACTERIOLOGICAL SAMPLES WERE TAKEN. 5
NUMBER OF MONTHS IN PAST YEAR OF OPERATION THAT ONE BACTERIOLOGICAL SAMPLE WAS TAKEN. 0
NUMBER OF MONTHS WHEN THE BACTERIOLOGICAL LIMITS OF THE DWS WERE NOT MET. 1

CHEMICAL QUALITY
DWS MANDATORY LIMITS FAILED
DWS RECOMMENDED LIMITS FAILED

SANITARY CONDITIONS
IS THE SOURCE PROTECTION ADEQUATE? YES x NO ___

IS OPERATION AND CONTROL ADEQUATE? YES ___ NO x
Chlorine residual and turbidity levels should be checked daily.
No chlorine residuals were present on the day of the survey.

IS THE WATER SYSTEM CAPABLE OF DELIVERING A CONTINUOUS SUPPLY OF SAFE WATER WITHOUT MAJOR IMPROVEMENTS? YES x NO ___

PHYSICAL AND CHEMICAL RESULTS

ARSENIC (0.01)*	<.005	FLUORIDE (1.4 to 2.4) **	<.10	pH	7.4
(0.05)**				SELENIUM (0.01)**	<.005
BARIUM (1.0)**	<.05	IRON (0.3)*	.006	SILVER (0.05)**	.019
CADMIUM (0.01)**	.000	LEAD (0.05)**	.000	SULFATE (250)*	<25.
CHLORIDE (250)*	<10.	M.B.A.S. (0.5)*	<.250	TOTAL DISSOLVED SOLIDS (500)*	92.
CHROMIUM (.05)**	.000	MANGANESE (0.05)*	.000		
COLOR (15 s.u.)*	2	MERCURY	<.0005	TURBIDITY (5 s.u.)*	.3
COPPER (1.0)*	.006	NITRATE (45)*	<1.0	ZINC (5.0)*	.470

*RECOMMENDED LIMIT **MANDATORY LIMIT
ALL VALUES ARE MILLIGRAMS PER LITER UNLESS OTHERWISE NOTED.

BACTERIOLOGICAL RESULTS

	COLIFORM/100 ml	FECAL COLIFORM/100 ml
RAW WATER		
DISTRIBUTION #1	0	0
DISTRIBUTION #2	0	0

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REPORT ON INDIVIDUAL WATER SUPPLIES
U.S. FOREST SERVICE STUDY

NAME OF FOREST-Shasta-Trinity National Forest DATE OF SURVEY 7/25/73
NAME OF SUPPLY Baily Cove STORAGE steel tank
TREATMENT chlorination SOURCE stream

BACTERIOLOGICAL QUALITY
NUMBER OF MONTHS IN PAST YEAR OF OPERATION THAT NO BACTERIOLOGICAL SAMPLES WERE TAKEN. 2
NUMBER OF MONTHS IN PAST YEAR OF OPERATION THAT ONE BACTERIOLOGICAL SAMPLE WAS TAKEN. 3
NUMBER OF MONTHS WHEN THE BACTERIOLOGICAL LIMITS OF THE DWS WERE NOT MET. 3

CHEMICAL QUALITY
DWS MANDATORY LIMITS FAILED
DWS RECOMMENDED LIMITS FAILED

SANITARY CONDITIONS
IS THE SOURCE PROTECTION ADEQUATE? YES x NO ___

IS OPERATION AND CONTROL ADEQUATE? YES ___ NO x
Chlorine residual not checked daily. No chlorine residual on day of survey.

IS THE WATER SYSTEM CAPABLE OF DELIVERING A CONTINUOUS SUPPLY OF SAFE WATER WITHOUT MAJOR IMPROVEMENTS? YES ___ NO x
Vent on storage tank should be turned down.

PHYSICAL AND CHEMICAL RESULTS

ARSENIC (0.01)*	<.005	FLUORIDE (1.4 to 2.4) **	<.10	pH	7.6
(0.05)**				SELENIUM (0.01)**	<.005
BARIUM (1.0)**	<.05	IRON (0.3)*	.012	SILVER (0.05)**	.000
CADMIUM (0.01)**	.000	LEAD (0.05)**	.000	SULFATE (250)*	87.
CHLORIDE (250)*	<10.	M.B.A.S. (0.5)*	<.250	TOTAL DISSOLVED SOLIDS (500)*	262.
CHROMIUM (.05)**	.000	MANGANESE (0.05)*	.003		
COLOR (15 s.u.)*	2	MERCURY	<.0005	TURBIDITY (5 s.u.)*	.1
COPPER (1.0)*	.000	NITRATE (45)*	<1.0	ZINC (5.0)*	.150

*RECOMMENDED LIMIT **MANDATORY LIMIT
ALL VALUES ARE MILLIGRAMS PER LITER UNLESS OTHERWISE NOTED.

BACTERIOLOGICAL RESULTS

	COLIFORM/100 ml	FECAL COLIFORM/100 ml
RAW WATER		
DISTRIBUTION #1	Colony Growth Confluent	
DISTRIBUTION #2		

REPORT ON INDIVIDUAL WATER SUPPLIES
U.S. FOREST SERVICE STUDY

NAME OF FOREST-Shasta-Trinity National Forest DATE OF SURVEY 7/25/73
NAME OF SUPPLY Preacher Meadow STORAGE Redwood Tank
TREATMENT Chlorination SOURCE spring

BACTERIOLOGICAL QUALITY

NUMBER OF MONTHS IN PAST YEAR OF OPERATION THAT NO BACTERIOLOGICAL SAMPLES WERE TAKEN. 0

NUMBER OF MONTHS IN PAST YEAR OF OPERATION THAT ONE BACTERIOLOGICAL SAMPLE WAS TAKEN. 3

NUMBER OF MONTHS WHEN THE BACTERIOLOGICAL LIMITS OF THE DWS WERE NOT MET. 1

CHEMICAL QUALITY

DWS MANDATORY LIMITS FAILED
DWS RECOMMENDED LIMITS FAILED

SANITARY CONDITIONS

IS THE SOURCE PROTECTION ADEQUATE? YES ___ NO x

No fencing around leech field

IS OPERATION AND CONTROL ADEQUATE? YES ___ NO x

Chlorine residual should be checked daily. No chlorine residual on day of survey.

IS THE WATER SYSTEM CAPABLE OF DELIVERING A CONTINUOUS SUPPLY OF SAFE WATER WITHOUT MAJOR IMPROVEMENTS? YES ___ NO x

Pressure in distribution system not adequate. Source protection should be improved.

PHYSICAL AND CHEMICAL RESULTS

ARSENIC (0.01)*<.005 (0.05)**	FLUORIDE (1.4 to 2.4) ** <.10	pH	7.6
BARIUM (1.0)** <.05	IRON (0.3)* .069	SELENIUM (0.01)**	<.005
CADMIUM (0.01)**.000	LEAD (0.05)** .000	SILVER (0.05)**	.000
CHLORIDE (250)*<10.	M.B.A.S. (0.5)* <.250	SULFATE (250)*	<25.
CHROMIUM (.05)**.000	MANGANESE (0.05)* .010	TOTAL DISSOLVED SOLIDS (500)*	116.
COLOR (15 s.u.)*3	MERCURY <.0005	TURBIDITY (5 s.u.)*	.5
COPPER (1.0)* .006	NITRATE (45)* <1.0	ZINC (5.0)*	1.010

*RECOMMENDED LIMIT **MANDATORY LIMIT
ALL VALUES ARE MILLIGRAMS PER LITER UNLESS OTHERWISE NOTED.

BACTERIOLOGICAL RESULTS

	COLIFORM/100 ml	FECAL COLIFORM/100 ml
RAW WATER		
DISTRIBUTION #1	0	0
DISTRIBUTION #2	0	0

REPORT ON INDIVIDUAL WATER SUPPLIES
U.S. FOREST SERVICE STUDY

NAME OF FOREST-Shasta-Trinity National Forest DATE OF SURVEY 7/25/73
NAME OF SUPPLY Alpine View STORAGE steel tank
TREATMENT Chlorination, sand filtration SOURCE stream

BACTERIOLOGICAL QUALITY

NUMBER OF MONTHS IN PAST YEAR OF OPERATION THAT NO BACTERIOLOGICAL SAMPLES WERE TAKEN. 7

NUMBER OF MONTHS IN PAST YEAR OF OPERATION THAT ONE BACTERIOLOGICAL SAMPLE WAS TAKEN. 2

NUMBER OF MONTHS WHEN THE BACTERIOLOGICAL LIMITS OF THE DWS WERE NOT MET. 1

CHEMICAL QUALITY

DWS MANDATORY LIMITS FAILED
DWS RECOMMENDED LIMITS FAILED

SANITARY CONDITIONS

IS THE SOURCE PROTECTION ADEQUATE? YES ___ NO x

Stream subject to surface contamination

IS OPERATION AND CONTROL ADEQUATE? YES ___ NO x

Chlorine residual should be checked daily. No chlorine residual in some parts of the distribution system on the day of the survey.

IS THE WATER SYSTEM CAPABLE OF DELIVERING A CONTINUOUS SUPPLY OF SAFE WATER WITHOUT MAJOR IMPROVEMENTS? YES ___ NO x

Overflow on storage tank not screened. Lid on storage tank is not tight.

PHYSICAL AND CHEMICAL RESULTS

ARSENIC (0.01)*<.005 (0.05)**	FLUORIDE (1.4 to 2.4) ** <.10	pH	7.2
BARIUM (1.0)** <.05	IRON (0.3)* .100	SELENIUM (0.01)**	<.005
CADMIUM (0.01)**.000	LEAD (0.05)** .000	SILVER (0.05)**	.000
CHLORIDE (250)*<10.	M.B.A.S. (0.5)* <.250	SULFATE (250)*	<25.
CHROMIUM (.05)**.000	MANGANESE (0.05)* .000	TOTAL DISSOLVED SOLIDS (500)*	45.
COLOR (15 s.u.)*3	MERCURY <.0005	TURBIDITY (5 s.u.)*	.2
COPPER (1.0)* .011	NITRATE (45)* <1.0	ZINC (5.0)*	.590

*RECOMMENDED LIMIT **MANDATORY LIMIT
ALL VALUES ARE MILLIGRAMS PER LITER UNLESS OTHERWISE NOTED.

BACTERIOLOGICAL RESULTS

	COLIFORM/100 ml	FECAL COLIFORM/100 ml
RAW WATER		
DISTRIBUTION #1	0	0
DISTRIBUTION #2	0	0

REPORT ON INDIVIDUAL WATER SUPPLIES
U.S. FOREST SERVICE STUDY

NAME OF FOREST -Shasta-Trinity National Forest DATE OF SURVEY 7/24/73
NAME OF SUPPLY Hayden Flat STORAGE redwood tanks
TREATMENT chlorination, sand filtration SOURCE spring

BACTERIOLOGICAL QUALITY
NUMBER OF MONTHS IN PAST YEAR OF OPERATION THAT NO BACTERIOLOGICAL SAMPLES WERE TAKEN. 6
NUMBER OF MONTHS IN PAST YEAR OF OPERATION THAT ONE BACTERIOLOGICAL SAMPLE WAS TAKEN. 1
NUMBER OF MONTHS WHEN THE BACTERIOLOGICAL LIMITS OF THE DWS WERE NOT MET. 0

CHEMICAL QUALITY
DWS MANDATORY LIMITS FAILED Silver
DWS RECOMMENDED LIMITS FAILED

SANITARY CONDITIONS
IS THE SOURCE PROTECTION ADEQUATE? YES ___ NO x
Surface drainage not controlled above spring

IS OPERATION AND CONTROL ADEQUATE? YES ___ NO x
Chlorine residual should be checked daily. No chlorine residual in distribution system on day of survey.

IS THE WATER SYSTEM CAPABLE OF DELIVERING A CONTINUOUS SUPPLY OF SAFE WATER WITHOUT MAJOR IMPROVEMENTS? YES ___ NO x
Overflow of storage tank should be screened. Roof of storage tank not watertight. Pressure not adequate in distribution system.

PHYSICAL AND CHEMICAL RESULTS

ARSENIC (0.01)*	<.005	FLUORIDE (1.4 to 2.4) **	.20	pH	8.0
(0.05)**		IRON (0.3)*	.012	SELENIUM (0.01)**	<.005
BARIUM (1.0)**	.11	LEAD (0.05)**	.040	SILVER (0.05)**	.110
CADMIUM (0.01)**	.000	M.B.A.S. (0.5)*	<.250	SULFATE (250)*	52.
CHLORIDE (250)*	<10.	MANGANESE (0.05)*	.000	TOTAL DISSOLVED SOLIDS (500)*	387.
CHROMIUM (.05)**	.000	MERCURY	<.0005	TURBIDITY (5 s.u.)*	.2
COLOR (15 s.u.)*3		NITRATE (45)*	< 1.0	ZINC (5.0)*	1.020
COPPER (1.0)*	.000				

*RECOMMENDED LIMIT **MANDATORY LIMIT
ALL VALUES ARE MILLIGRAMS PER LITER UNLESS OTHERWISE NOTED.

BACTERIOLOGICAL RESULTS

	COLIFORM/100 ml	FECAL COLIFORM/100 ml
RAW WATER		
DISTRIBUTION #1	0	0
DISTRIBUTION #2	0	0

REPORT ON INDIVIDUAL WATER SUPPLIES
U.S. FOREST SERVICE STUDY

NAME OF FOREST -Shasta-Trinity National Forest DATE OF SURVEY 7/24/73
NAME OF SUPPLY Big Bar Camp STORAGE redwood tanks
TREATMENT sand filtration SOURCE stream

BACTERIOLOGICAL QUALITY
NUMBER OF MONTHS IN PAST YEAR OF OPERATION THAT NO BACTERIOLOGICAL SAMPLES WERE TAKEN. 7
NUMBER OF MONTHS IN PAST YEAR OF OPERATION THAT ONE BACTERIOLOGICAL SAMPLE WAS TAKEN. 0
NUMBER OF MONTHS WHEN THE BACTERIOLOGICAL LIMITS OF THE DWS WERE NOT MET. 1

CHEMICAL QUALITY
DWS MANDATORY LIMITS FAILED Bacteriological Standard
DWS RECOMMENDED LIMITS FAILED

SANITARY CONDITIONS
IS THE SOURCE PROTECTION ADEQUATE? YES ___ NO x
Intake should have sanitary cover

IS OPERATION AND CONTROL ADEQUATE? YES x NO ___

IS THE WATER SYSTEM CAPABLE OF DELIVERING A CONTINUOUS SUPPLY OF SAFE WATER WITHOUT MAJOR IMPROVEMENTS? YES ___ NO x
Overflow on tank should be screened. Roof of tank should be watertight.

PHYSICAL AND CHEMICAL RESULTS

ARSENIC (0.01)*	<.005	FLUORIDE (1.4 to 2.4) **	.10	pH	7.8
(0.05)**		IRON (0.3)*	.012	SELENIUM (0.01)**	<.005
BARIUM (1.0)**	<.05	LEAD (0.05)**	.000	SILVER (0.05)**	.000
CADMIUM (0.01)**	.000	M.B.A.S. (0.5)*	<.250	SULFATE (250)*	25.
CHLORIDE (250)*	10.	MANGANESE (0.05)*	.000	TOTAL DISSOLVED SOLIDS (500)*	174.
CHROMIUM (.05)**	.000	MERCURY	<.0005	TURBIDITY (5 s.u.)*	.1
COLOR (15 s.u.)*3		NITRATE (45)*	< 1.0	ZINC (5.0)*	.640
COPPER (1.0)*	.000				

*RECOMMENDED LIMIT **MANDATORY LIMIT
ALL VALUES ARE MILLIGRAMS PER LITER UNLESS OTHERWISE NOTED.

BACTERIOLOGICAL RESULTS

	COLIFORM/100 ml	FECAL COLIFORM/100 ml
RAW WATER		
DISTRIBUTION #1	0	0
DISTRIBUTION #2	> 20	2

REPORT ON INDIVIDUAL WATER SUPPLIES
U.S. FOREST SERVICE STUDY

NAME OF FOREST -Shasta-Trinity National Forest DATE OF SURVEY 7/24/73
NAME OF SUPPLY Basin Gulch STORAGE wood tank
TREATMENT chlorination SOURCE stream

BACTERIOLOGICAL QUALITY
NUMBER OF MONTHS IN PAST YEAR OF OPERATION THAT NO BACTERIOLOGICAL SAMPLES WERE TAKEN. 6
NUMBER OF MONTHS IN PAST YEAR OF OPERATION THAT ONE BACTERIOLOGICAL SAMPLE WAS TAKEN. 5
NUMBER OF MONTHS WHEN THE BACTERIOLOGICAL LIMITS OF THE DWS WERE NOT MET. 1

CHEMICAL QUALITY
DWS MANDATORY LIMITS FAILED
DWS RECOMMENDED LIMITS FAILED

SANITARY CONDITIONS
IS THE SOURCE PROTECTION ADEQUATE? YES ___ NO x
Surface source is not protected.

IS OPERATION AND CONTROL ADEQUATE? YES ___ NO x
Chlorine residual should be checked daily.

IS THE WATER SYSTEM CAPABLE OF DELIVERING A CONTINUOUS SUPPLY OF SAFE WATER WITHOUT MAJOR IMPROVEMENTS? YES x NO ___

PHYSICAL AND CHEMICAL RESULTS

ARSENIC (0.01)*	<.005	FLUORIDE (1.4 to 2.4) **	<.10	pH	7.6
(0.05)**		IRON (0.3)*	.012	SELENIUM (0.01)**	<.005
BARIUM (1.0)**	.10	LEAD (0.05)**	.000	SILVER (0.05)**	.000
CADMIUM (0.01)**	.000	M.B.A.S. (0.5)*	<.250	SULFATE (250)*	<25.
CHLORIDE (250)*	<10.	MANGANESE (0.05)*	.000	TOTAL DISSOLVED SOLIDS (500)*	127.
CHROMIUM (.05)**	.000	MERCURY	<.0005	TURBIDITY (5 s.u.)*	.1
COLOR (15 s.u.)*	3	NITRATE (45)*	<1.0	ZINC (5.0)*	.180
COPPER (1.0)*	.000				

*RECOMMENDED LIMIT **MANDATORY LIMIT
ALL VALUES ARE MILLIGRAMS PER LITER UNLESS OTHERWISE NOTED.

BACTERIOLOGICAL RESULTS

	COLIFORM/100 ml	FECAL COLIFORM/100 ml
RAW WATER		
DISTRIBUTION #1	0	0
DISTRIBUTION #2	0	0

REPORT ON INDIVIDUAL WATER SUPPLIES
U.S. FOREST SERVICE STUDY

NAME OF FOREST -Shasta-Trinity National Forest DATE OF SURVEY 7/24/73
NAME OF SUPPLY Big Flat STORAGE redwood tanks
TREATMENT chlorination SOURCE spring

BACTERIOLOGICAL QUALITY
NUMBER OF MONTHS IN PAST YEAR OF OPERATION THAT NO BACTERIOLOGICAL SAMPLES WERE TAKEN. 5
NUMBER OF MONTHS IN PAST YEAR OF OPERATION THAT ONE BACTERIOLOGICAL SAMPLE WAS TAKEN. 2
NUMBER OF MONTHS WHEN THE BACTERIOLOGICAL LIMITS OF THE DWS WERE NOT MET. 1

CHEMICAL QUALITY
DWS MANDATORY LIMITS FAILED
DWS RECOMMENDED LIMITS FAILED

SANITARY CONDITIONS
IS THE SOURCE PROTECTION ADEQUATE? YES x NO ___

IS OPERATION AND CONTROL ADEQUATE? YES ___ NO x
Chlorine residual not checked daily.

IS THE WATER SYSTEM CAPABLE OF DELIVERING A CONTINUOUS SUPPLY OF SAFE WATER WITHOUT MAJOR IMPROVEMENTS? YES ___ NO x
Roof of storage tank is not watertight.

PHYSICAL AND CHEMICAL RESULTS

ARSENIC (0.01)*	<.005	FLUORIDE (1.4 to 2.4) **	.20	pH	7.8
(0.05)**		IRON (0.3)*	.089	SELENIUM (0.01)**	<.005
BARIUM (1.0)**	.14	LEAD (0.05)**	.000	SILVER (0.05)**	.000
CADMIUM (0.01)**	.000	M.B.A.S. (0.5)*	<.250	SULFATE (250)*	<25.
CHLORIDE (250)*	<10.	MANGANESE (0.05)*	.003	TOTAL DISSOLVED SOLIDS (500)*	338.
CHROMIUM (.05)**	.000	MERCURY	.0013	TURBIDITY (5 s.u.)*	.1
COLOR (15 s.u.)*	3	NITRATE (45)*	<1.0	ZINC (5.0)*	.590
COPPER (1.0)*	.000				

*RECOMMENDED LIMIT **MANDATORY LIMIT
ALL VALUES ARE MILLIGRAMS PER LITER UNLESS OTHERWISE NOTED.

BACTERIOLOGICAL RESULTS

	COLIFORM/100 ml	FECAL COLIFORM/100 ml
RAW WATER		
DISTRIBUTION #1	0	0
DISTRIBUTION #2	0	0

REPORT ON INDIVIDUAL WATER SUPPLIES
U.S. FOREST SERVICE STUDY

NAME OF FOREST -Shasta-Trinity National Forest DATE OF SURVEY 7/24/73
NAME OF SUPPLY Harrison Gulch STORAGE concrete tank
TREATMENT chlorination SOURCE well and spring

BACTERIOLOGICAL QUALITY
NUMBER OF MONTHS IN PAST YEAR OF OPERATION THAT NO BACTERIOLOGICAL SAMPLES WERE TAKEN. 3
NUMBER OF MONTHS IN PAST YEAR OF OPERATION THAT ONE BACTERIOLOGICAL SAMPLE WAS TAKEN. 2
NUMBER OF MONTHS WHEN THE BACTERIOLOGICAL LIMITS OF THE DWS WERE NOT MET. 0

CHEMICAL QUALITY
DWS MANDATORY LIMITS FAILED
DWS RECOMMENDED LIMITS FAILED Iron

SANITARY CONDITIONS
IS THE SOURCE PROTECTION ADEQUATE? YES ___ NO x
Well is located next to septic tank effluent. Ponding occurs next to well.

IS OPERATION AND CONTROL ADEQUATE? YES ___ NO x
Chlorine residuals should be checked daily.

IS THE WATER SYSTEM CAPABLE OF DELIVERING A CONTINUOUS SUPPLY OF SAFE WATER WITHOUT MAJOR IMPROVEMENTS? YES ___ NO x
Improved source protection is needed.

PHYSICAL AND CHEMICAL RESULTS

ARSENIC (0.01)*	<.005	FLUORIDE (1.4 to 2.4) **	.20	pH	7.6
(0.05)**		IRON (0.3)*	.910	SELENIUM (0.01)**	<.005
BARIUM (1.0)**	<.05	LEAD (0.05)**	.000	SILVER (0.05)**	.000
CADMIUM (0.01)**	.000	M.B.A.S. (0.5)*	<.250	SULFATE (250)*	< 25.
CHLORIDE (250)*	<10.	MANGANESE (0.05)*	.026	TOTAL DISSOLVED SOLIDS (500)*	215.
CHROMIUM (.05)**	.000	MERCURY	.0010	TURBIDITY (5 s.u.)*	4.8
COLOR (15 s.u.)*	5	NITRATE (45)*	<1.0	ZINC (5.0)*	.560
COPPER (1.0)*	.011				

*RECOMMENDED LIMIT **MANDATORY LIMIT
ALL VALUES ARE MILLIGRAMS PER LITER UNLESS OTHERWISE NOTED.

BACTERIOLOGICAL RESULTS

	COLIFORM/100 ml	FECAL COLIFORM/100 ml
RAW WATER		
DISTRIBUTION #1	0	0
DISTRIBUTION #2	0	0

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REPORT ON INDIVIDUAL WATER SUPPLIES
U.S. FOREST SERVICE STUDY

NAME OF FOREST--Shasta-Trinity National Forest DATE OF SURVEY 7/24/73
NAME OF SUPPLY Deerlick Springs STORAGE redwood tank
TREATMENT chlorination SOURCE stream

BACTERIOLOGICAL QUALITY
NUMBER OF MONTHS IN PAST YEAR OF OPERATION THAT NO BACTERIOLOGICAL SAMPLES WERE TAKEN. 6
NUMBER OF MONTHS IN PAST YEAR OF OPERATION THAT ONE BACTERIOLOGICAL SAMPLE WAS TAKEN. 5
NUMBER OF MONTHS WHEN THE BACTERIOLOGICAL LIMITS OF THE DWS WERE NOT MET. 1

CHEMICAL QUALITY
DWS MANDATORY LIMITS FAILED
DWS RECOMMENDED LIMITS FAILED

SANITARY CONDITIONS
IS THE SOURCE PROTECTION ADEQUATE? YES ___ NO x
Stream is subject to surface contamination.

IS OPERATION AND CONTROL ADEQUATE? YES ___ NO x
Chlorine residual should be checked daily.

IS THE WATER SYSTEM CAPABLE OF DELIVERING A CONTINUOUS SUPPLY OF SAFE WATER WITHOUT MAJOR IMPROVEMENTS? YES x NO ___

PHYSICAL AND CHEMICAL RESULTS

ARSENIC (0.01)*	<.005	FLUORIDE (1.4 to 2.4) **	.20	pH	7.7
(0.05)**		IRON (0.3)*	.036	SELENIUM (0.01)**	<.005
BARIUM (1.0)**	<.05	LEAD (0.05)**	.000	SILVER (0.05)**	.000
CADMIUM (0.01)**	.000	M.B.A.S. (0.5)*	<.250	SULFATE (250)*	<25.
CHLORIDE (250)*	<10.	MANGANESE (0.05)*	.000	TOTAL DISSOLVED SOLIDS (500)*	206.
CHROMIUM (.05)**	.000	MERCURY	<.0005	TURBIDITY (5 s.u.)*	.3
COLOR (15 s.u.)*	2	NITRATE (45)*	<1.0	ZINC (5.0)*	.100
COPPER (1.0)*	.011				

*RECOMMENDED LIMIT **MANDATORY LIMIT
ALL VALUES ARE MILLIGRAMS PER LITER UNLESS OTHERWISE NOTED.

BACTERIOLOGICAL RESULTS

	COLIFORM/100 ml	FECAL COLIFORM/100 ml
RAW WATER	64	2
DISTRIBUTION #1	0	0
DISTRIBUTION #2	0	0

REPORT ON INDIVIDUAL WATER SUPPLIES
U.S. FOREST SERVICE STUDY

NAME OF FOREST -Shasta-Trinity National Forest DATE OF SURVEY 7/23/73
NAME OF SUPPLY Jones Valley Boat Ramp STORAGE pressure tank
TREATMENT chlorination SOURCE well

BACTERIOLOGICAL QUALITY
NUMBER OF MONTHS IN PAST YEAR OF OPERATION THAT NO BACTERIOLOGICAL SAMPLES WERE TAKEN. 0 (New System)
NUMBER OF MONTHS IN PAST YEAR OF OPERATION THAT ONE BACTERIOLOGICAL SAMPLE WAS TAKEN. 2
NUMBER OF MONTHS WHEN THE BACTERIOLOGICAL LIMITS OF THE DWS WERE NOT MET. 0

CHEMICAL QUALITY
DWS MANDATORY LIMITS FAILED
DWS RECOMMENDED LIMITS FAILED Color, Iron, Manganese, Turbidity

SANITARY CONDITIONS
IS THE SOURCE PROTECTION ADEQUATE? YES ? NO ___

IS OPERATION AND CONTROL ADEQUATE? YES ___ NO x

Chlorine residual not checked daily. No chlorine residual in distribution system on day of survey.

IS THE WATER SYSTEM CAPABLE OF DELIVERING A CONTINUOUS SUPPLY OF SAFE WATER WITHOUT MAJOR IMPROVEMENTS? YES x NO ___

PHYSICAL AND CHEMICAL RESULTS

ARSENIC (0.01)*	<.005	FLUORIDE (1.4 to 2.4) **	.10	pH	7.0
(0.05)**				SELENIUM (0.01)**	<.005
BARIUM (1.0)**	<.05	IRON (0.3)*	3.100	SILVER (0.05)**	.00
CADMIUM (0.01)**	.000	LEAD (0.05)**	.000	SULFATE (250)*	31.
CHLORIDE (250)*	<10.	M.B.A.S. (0.5)*	<.250	TOTAL DISSOLVED SOLIDS (500)*	14
CHROMIUM (.05)**	.000	MANGANESE (0.05)*	.450		
COLOR (15 s.u.)*	50.	MERCURY	<.0005	TURBIDITY (5 s.u.)*	30.
COPPER (1.0)*	.000	NITRATE (45)*	<1.0	ZINC (5.0)*	.089

*RECOMMENDED LIMIT **MANDATORY LIMIT
ALL VALUES ARE MILLIGRAMS PER LITER UNLESS OTHERWISE NOTED.

BACTERIOLOGICAL RESULTS

	COLIFORM/100 ml	FECAL COLIFORM/100 ml
RAW WATER		
DISTRIBUTION #1	0	0
DISTRIBUTION #2	0	0

REPORT ON INDIVIDUAL WATER SUPPLIES
U.S. FOREST SERVICE STUDY

NAME OF FOREST -Shasta-Trinity National Forest DATE OF SURVEY 7/23/73
NAME OF SUPPLY Oak Grove Camp STORAGE concrete underground tank
TREATMENT chlorination, sand filtration SOURCE stream

BACTERIOLOGICAL QUALITY
NUMBER OF MONTHS IN PAST YEAR OF OPERATION THAT NO BACTERIOLOGICAL SAMPLES WERE TAKEN. 0
NUMBER OF MONTHS IN PAST YEAR OF OPERATION THAT ONE BACTERIOLOGICAL SAMPLE WAS TAKEN. 2
NUMBER OF MONTHS WHEN THE BACTERIOLOGICAL LIMITS OF THE DWS WERE NOT MET. 0

CHEMICAL QUALITY
DWS MANDATORY LIMITS FAILED
DWS RECOMMENDED LIMITS FAILED Manganese

SANITARY CONDITIONS
IS THE SOURCE PROTECTION ADEQUATE? YES x NO ___

IS OPERATION AND CONTROL ADEQUATE? YES ___ NO x

Chlorine residual not checked daily.

IS THE WATER SYSTEM CAPABLE OF DELIVERING A CONTINUOUS SUPPLY OF SAFE WATER WITHOUT MAJOR IMPROVEMENTS? YES ___ NO x

Vent on storage tank should be screened.

PHYSICAL AND CHEMICAL RESULTS

ARSENIC (0.01)*	<.005	FLUORIDE (1.4 to 2.4) **	.10	pH	7.8
(0.05)**				SELENIUM (0.01)**	<.005
BARIUM (1.0)**	.07	IRON (0.3)*	.340	SILVER (0.05)**	.000
CADMIUM (0.01)**	.000	LEAD (0.05)**	.000	SULFATE (250)*	<25.
CHLORIDE (250)*	<10.	M.B.A.S. (0.5)*	<.250	TOTAL DISSOLVED SOLIDS (500)*	112.
CHROMIUM (.05)**	.000	MANGANESE (0.05)*	.180		
COLOR (15 s.u.)*	10	MERCURY	<.0005	TURBIDITY (5 s.u.)*	5.0
COPPER (1.0)*	.000	NITRATE (45)*	<1.0	ZINC (5.0)*	4.100

*RECOMMENDED LIMIT **MANDATORY LIMIT
ALL VALUES ARE MILLIGRAMS PER LITER UNLESS OTHERWISE NOTED.

BACTERIOLOGICAL RESULTS

	COLIFORM/100 ml	FECAL COLIFORM/100 ml
RAW WATER		
DISTRIBUTION #1	0	0
DISTRIBUTION #2	0	0

REPORT ON INDIVIDUAL WATER SUPPLIES
U.S. FOREST SERVICE STUDY

NAME OF FOREST -Shasta-Trinity National Forest DATE OF SURVEY 7/23/73
NAME OF SUPPLY Birz Bay Camp STORAGE Concrete tank
TREATMENT sand filtration, chlorination SOURCE lake

BACTERIOLOGICAL QUALITY
NUMBER OF MONTHS IN PAST YEAR OF OPERATION THAT NO BACTERIOLOGICAL SAMPLES WERE TAKEN. 7
NUMBER OF MONTHS IN PAST YEAR OF OPERATION THAT ONE BACTERIOLOGICAL SAMPLE WAS TAKEN. 5
NUMBER OF MONTHS WHEN THE BACTERIOLOGICAL LIMITS OF THE DWS WERE NOT MET 0

CHEMICAL QUALITY
DWS MANDATORY LIMITS FAILED
DWS RECOMMENDED LIMITS FAILED

SANITARY CONDITIONS
IS THE SOURCE PROTECTION ADEQUATE? YES x NO ___

IS OPERATION AND CONTROL ADEQUATE? YES ___ NO x
Chlorine residual not checked daily. No chlorine residual in distribution system on day of survey.
IS THE WATER SYSTEM CAPABLE OF DELIVERING A CONTINUOUS SUPPLY OF SAFE WATER WITHOUT MAJOR IMPROVEMENTS? YES ___ NO x
Vent on storage tank should be screened. Lid of storage tank has holes in it.

PHYSICAL AND CHEMICAL RESULTS

ARSENIC (0.01)*	<.005	FLUORIDE (1.4 to 2.4) **	.10	pH	7.3
(0.05)**		IRON (0.3)*	.030	SELENIUM (0.01)**	<.005
BARIUM (1.0)**	<.05	LEAD (0.05)**	.000	SILVER (0.05)**	.000
CADMIUM (0.01)**	.000	M.B.A.S. (0.5)*	<.250	SULFATE (250)*	<25.
CHLORIDE (250)*	<10.	MANGANESE (0.05)*	.000	TOTAL DISSOLVED SOLIDS (500)*	78.
CHROMIUM (.05)**	.000	MERCURY	<.0005	TURBIDITY (5 s.u.)*	.3
COLOR (15 s.u.)*	3	NITRATE (45)*	<1.0	ZINC (5.0)*	1.500
COPPER (1.0)*	.006				

*RECOMMENDED LIMIT **MANDATORY LIMIT
ALL VALUES ARE MILLIGRAMS PER LITER UNLESS OTHERWISE NOTED.

BACTERIOLOGICAL RESULTS

	COLIFORM/100 ml	FECAL COLIFORM/100 ml
RAW WATER		
DISTRIBUTION #1	0	0
DISTRIBUTION #2	0	0

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REPORT ON INDIVIDUAL WATER SUPPLIES
U.S. FOREST SERVICE STUDY

NAME OF FOREST -Shasta-Trinity National Forest DATE OF SURVEY 7/23/73
NAME OF SUPPLY McCloud Bridge Camp STORAGE steel tank
TREATMENT Chlorination SOURCE stream

BACTERIOLOGICAL QUALITY
NUMBER OF MONTHS IN PAST YEAR OF OPERATION THAT NO BACTERIOLOGICAL SAMPLES WERE TAKEN. 8
NUMBER OF MONTHS IN PAST YEAR OF OPERATION THAT ONE BACTERIOLOGICAL SAMPLE WAS TAKEN. 4
NUMBER OF MONTHS WHEN THE BACTERIOLOGICAL LIMITS OF THE DWS WERE NOT MET. 2

CHEMICAL QUALITY
DWS MANDATORY LIMITS FAILED Bacteriological Standard
DWS RECOMMENDED LIMITS FAILED

SANITARY CONDITIONS
IS THE SOURCE PROTECTION ADEQUATE? YES ___ NO x
Source is not protected.

IS OPERATION AND CONTROL ADEQUATE? YES ___ NO x
Chlorine residuals should be checked daily and recorded. Distribution system inspections should be made often enough to spot cross connections and leaking pipes.
IS THE WATER SYSTEM CAPABLE OF DELIVERING A CONTINUOUS SUPPLY OF SAFE WATER WITHOUT MAJOR IMPROVEMENTS? YES ___ NO x
There is a cross-connection at the leaking pipe joint. A screen is needed on the storage tank overflow. Source protection needs improvement. Distribution system pressure was not adequate.

PHYSICAL AND CHEMICAL RESULTS

ARSENIC (0.01)*	<.005	FLUORIDE (1.4 to 2.4) **	<.10	pH	7.6
(0.05)**		IRON (0.3)*	.006	SELENIUM (0.01)**	<.005
BARIUM (1.0)**	<.05	LEAD (0.05)**	.000	SILVER (0.05)**	.000
CADMIUM (0.01)**	.000	M.B.A.S. (0.5)*	<.250	SULFATE (250)*	<25.
CHLORIDE (250)*	<10.	MANGANESE (0.05)*	.000	TOTAL DISSOLVED SOLIDS (500)*	136.
CHROMIUM (.05)**	.000	MERCURY	<.0005	TURBIDITY (5 s.u.)*	.2
COLOR (15 s.u.)*	3	NITRATE (45)*	<1.0	ZINC (5.0)*	.022
COPPER (1.0)*	.000				

*RECOMMENDED LIMIT **MANDATORY LIMIT
ALL VALUES ARE MILLIGRAMS PER LITER UNLESS OTHERWISE NOTED.

BACTERIOLOGICAL RESULTS

	COLIFORM/100 ml	FECAL COLIFORM/100 ml
RAW WATER	60	10
DISTRIBUTION #1	11	0
DISTRIBUTION #2	3	0

REPORT ON INDIVIDUAL WATER SUPPLIES
U.S. FOREST SERVICE STUDY

NAME OF FOREST Arapaho National Forest
NAME OF SUPPLY Granella Campground
TREATMENT none
DATE OF SURVEY 8/7/73
STORAGE none
SOURCE handpumped well

BACTERIOLOGICAL QUALITY
NUMBER OF MONTHS IN PAST YEAR OF OPERATION THAT NO BACTERIOLOGICAL SAMPLES WERE TAKEN. 11
NUMBER OF MONTHS IN PAST YEAR OF OPERATION THAT ONE BACTERIOLOGICAL SAMPLE WAS TAKEN. 1
NUMBER OF MONTHS WHEN THE BACTERIOLOGICAL LIMITS OF THE DWS WERE NOT MET. 0

CHEMICAL QUALITY
DWS MANDATORY LIMITS FAILED
DWS RECOMMENDED LIMITS FAILED Iron, Manganese

SANITARY CONDITIONS
IS THE SOURCE PROTECTION ADEQUATE? YES x NO ___

IS OPERATION AND CONTROL ADEQUATE? YES x NO ___

IS THE WATER SYSTEM CAPABLE OF DELIVERING A CONTINUOUS SUPPLY OF SAFE WATER WITHOUT MAJOR IMPROVEMENTS? YES x NO ___

PHYSICAL AND CHEMICAL RESULTS

ARSENIC (0.01)*	<.005	FLUORIDE (1.4 to 2.4) **	.40	pH	7.9
(0.05)**		IRON (0.3)*	.420	SELENIUM (0.01)**	<.005
BARIUM (1.0)**	.09	LEAD (0.05)**	.000	SILVER (0.05)**	.000
CADMIUM (0.01)**	.000	M.B.A.S. (0.5)*	<.250	SULFATE (250)*	<25.
CHLORIDE (250)*	<1.	MANGANESE (0.05)*	.055	TOTAL DISSOLVED SOLIDS (500)*	111.
CHROMIUM (.05)**	.000	MERCURY	<.0005	TURBIDITY (5 s.u.)*	5
COLOR (15 s.u.)*	5	NITRATE (45)*	<1.0	ZINC (5.0)*	.270
COPPER (1.0)*	.000				

*RECOMMENDED LIMIT **MANDATORY LIMIT
ALL VALUES ARE MILLIGRAMS PER LITER UNLESS OTHERWISE NOTED.

BACTERIOLOGICAL RESULTS

	COLIFORM/100 ml	FECAL COLIFORM/100 ml
RAW WATER		
DISTRIBUTION #1	0	0
DISTRIBUTION #2		

REPORT ON INDIVIDUAL WATER SUPPLIES
U.S. FOREST SERVICE STUDY

NAME OF FOREST Arapaho National Forest
NAME OF SUPPLY Echo Lake Campground
TREATMENT manual chlorination
DATE OF SURVEY 8/16/73
STORAGE spring box
SOURCE spring

BACTERIOLOGICAL QUALITY
NUMBER OF MONTHS IN PAST YEAR OF OPERATION THAT NO BACTERIOLOGICAL SAMPLES WERE TAKEN. 1
NUMBER OF MONTHS IN PAST YEAR OF OPERATION THAT ONE BACTERIOLOGICAL SAMPLE WAS TAKEN. 1
NUMBER OF MONTHS WHEN THE BACTERIOLOGICAL LIMITS OF THE DWS WERE NOT MET. 0

CHEMICAL QUALITY
DWS MANDATORY LIMITS FAILED
DWS RECOMMENDED LIMITS FAILED

SANITARY CONDITIONS
IS THE SOURCE PROTECTION ADEQUATE? YES x NO ___

IS OPERATION AND CONTROL ADEQUATE? YES ___ NO x
Chlorine residual should be checked daily. No chlorine residual in distribution system on day of survey.

IS THE WATER SYSTEM CAPABLE OF DELIVERING A CONTINUOUS SUPPLY OF SAFE WATER WITHOUT MAJOR IMPROVEMENTS? YES ___ NO x
Overflow line should be screened.

PHYSICAL AND CHEMICAL RESULTS

ARSENIC (0.01)*	<.005	FLUORIDE (1.4 to 2.4) **	.20	pH	7.0
(0.05)**		IRON (0.3)*	.031	SELENIUM (0.01)**	.006
BARIUM (1.0)**	<.05	LEAD (0.05)**	.000	SILVER (0.05)**	.000
CADMIUM (0.01)**	.000	M.B.A.S. (0.5)*	<.250	SULFATE (250)*	<25.
CHLORIDE (250)*	<10.	MANGANESE (0.05)*	.000	TOTAL DISSOLVED SOLIDS (500)*	55.
CHROMIUM (.05)**	.000	MERCURY	<.0005	TURBIDITY (5 s.u.)*	.1
COLOR (15 s.u.)*	3	NITRATE (45)*	1.0	ZINC (5.0)*	.670
COPPER (1.0)*	.006				

*RECOMMENDED LIMIT **MANDATORY LIMIT
ALL VALUES ARE MILLIGRAMS PER LITER UNLESS OTHERWISE NOTED.

BACTERIOLOGICAL RESULTS

	COLIFORM/100 ml	FECAL COLIFORM/100 ml
RAW WATER		
DISTRIBUTION #1	0	0
DISTRIBUTION #2	0	0

REPORT ON INDIVIDUAL WATER SUPPLIES
U.S. FOREST SERVICE STUDY

NAME OF FOREST Arapaho National Forest
NAME OF SUPPLY Prospector
TREATMENT none
DATE OF SURVEY 8/8/73
STORAGE Steel underground tank
SOURCE surface

BACTERIOLOGICAL QUALITY
NUMBER OF MONTHS IN PAST YEAR OF OPERATION THAT NO BACTERIOLOGICAL SAMPLES WERE TAKEN. 1
NUMBER OF MONTHS IN PAST YEAR OF OPERATION THAT ONE BACTERIOLOGICAL SAMPLE WAS TAKEN. 0
NUMBER OF MONTHS WHEN THE BACTERIOLOGICAL LIMITS OF THE DWS WERE NOT MET. 0

CHEMICAL QUALITY
DWS MANDATORY LIMITS FAILED
DWS RECOMMENDED LIMITS FAILED

SANITARY CONDITIONS
IS THE SOURCE PROTECTION ADEQUATE? YES ___ NO x
Cattle grazing near source.

IS OPERATION AND CONTROL ADEQUATE? YES x NO ___

IS THE WATER SYSTEM CAPABLE OF DELIVERING A CONTINUOUS SUPPLY OF SAFE WATER WITHOUT MAJOR IMPROVEMENTS? YES ___ NO x
Seepage vent and overflow should have screens. Source protection needs improvement. Disinfection unit should be installed with surface sources.

PHYSICAL AND CHEMICAL RESULTS

ARSENIC (0.01)*	<.005	FLUORIDE (1.4 to 2.4) **	<.10	pH	7.9
(0.05)**		IRON (0.3)*	.018	SELENIUM (0.01)**	<.005
BARIUM (1.0)**	.23	LEAD (0.05)**	.000	SILVER (0.05)**	.000
CADMIUM (0.01)**	.000	M.B.A.S. (0.5)*	<.250	SULFATE (250)*	40.
CHLORIDE (250)*	<10.	MANGANESE (0.05)*	.000	TOTAL DISSOLVED SOLIDS (500)*	302.
CHROMIUM (.05)**	.000	MERCURY	<.0005	TURBIDITY (5 s.u.)*	.1
COLOR (15 s.u.)*	8	NITRATE (45)*	< 1.0	ZINC (5.0)*	3.300
COPPER (1.0)*	.000				

*RECOMMENDED LIMIT **MANDATORY LIMIT
ALL VALUES ARE MILLIGRAMS PER LITER UNLESS OTHERWISE NOTED.

BACTERIOLOGICAL RESULTS

	COLIFORM/100 ml	FECAL COLIFORM/100 ml
RAW WATER		
DISTRIBUTION #1	0	0
DISTRIBUTION #2	0	0

REPORT ON INDIVIDUAL WATER SUPPLIES
U.S. FOREST SERVICE STUDY

NAME OF FOREST Arapaho National Forest
NAME OF SUPPLY Mizpah Campground
TREATMENT none
DATE OF SURVEY 8/6/73
STORAGE none
SOURCE spring

BACTERIOLOGICAL QUALITY
NUMBER OF MONTHS IN PAST YEAR OF OPERATION THAT NO BACTERIOLOGICAL SAMPLES WERE TAKEN. 2
NUMBER OF MONTHS IN PAST YEAR OF OPERATION THAT ONE BACTERIOLOGICAL SAMPLE WAS TAKEN. 1
NUMBER OF MONTHS WHEN THE BACTERIOLOGICAL LIMITS OF THE DWS WERE NOT MET. 0

CHEMICAL QUALITY
DWS MANDATORY LIMITS FAILED
DWS RECOMMENDED LIMITS FAILED

SANITARY CONDITIONS
IS THE SOURCE PROTECTION ADEQUATE? YES ___ NO x
Surface water not diverted around spring. Overflow and drain of spring box should be screened.
IS OPERATION AND CONTROL ADEQUATE? YES x NO ___

IS THE WATER SYSTEM CAPABLE OF DELIVERING A CONTINUOUS SUPPLY OF SAFE WATER WITHOUT MAJOR IMPROVEMENTS? YES ___ NO x
Pressure not adequate at all points in distribution system.

PHYSICAL AND CHEMICAL RESULTS

ARSENIC (0.01)*	<.005	FLUORIDE (1.4 to 2.4) **	<.10	pH	7.5
(0.05)**		IRON (0.3)*	.090	SELENIUM (0.01)**	<.005
BARIUM (1.0)**	<.05	LEAD (0.05)**	.000	SILVER (0.05)**	.000
CADMIUM (0.01)**	.000	M.B.A.S. (0.5)*	<.250	SULFATE (250)*	<25.
CHLORIDE (250)*	<10.	MANGANESE (0.05)*	.000	TOTAL DISSOLVED SOLIDS (500)*	76.
CHROMIUM (05)**	.000	MERCURY	<.0005	TURBIDITY (5 s.u.)*	.4
COLOR (15 s.u.)*	3	NITRATE (45)*	<1.0	ZINC (5.0)*	.310
COPPER (1 0)*	.000				

*RECOMMENDED LIMIT **MANDATORY LIMIT
ALL VALUES ARE MILLIGRAMS PER LITER UNLESS OTHERWISE NOTED.

BACTERIOLOGICAL RESULTS

	COLIFORM/100 ml	FECAL COLIFORM/100 ml
RAW WATER		
DISTRIBUTION #1	0	0
DISTRIBUTION #2	0	0

REPORT ON INDIVIDUAL WATER SUPPLIES
U.S. FOREST SERVICE STUDY

NAME OF FOREST Arapaho National Forest
NAME OF SUPPLY Peak One
TREATMENT none
DATE OF SURVEY 8/8/73
STORAGE pressure tank
SOURCE drilled well

BACTERIOLOGICAL QUALITY
NUMBER OF MONTHS IN PAST YEAR OF OPERATION THAT NO BACTERIOLOGICAL SAMPLES WERE TAKEN. 4
NUMBER OF MONTHS IN PAST YEAR OF OPERATION THAT ONE BACTERIOLOGICAL SAMPLE WAS TAKEN. 0
NUMBER OF MONTHS WHEN THE BACTERIOLOGICAL LIMITS OF THE DWS WERE NOT MET. 0

CHEMICAL QUALITY
DWS MANDATORY LIMITS FAILED
DWS RECOMMENDED LIMITS FAILED

SANITARY CONDITIONS
IS THE SOURCE PROTECTION ADEQUATE? YES x NO ___

IS OPERATION AND CONTROL ADEQUATE? YES x NO ___

IS THE WATER SYSTEM CAPABLE OF DELIVERING A CONTINUOUS SUPPLY OF SAFE WATER WITHOUT MAJOR IMPROVEMENTS? YES ___ NO x

Pressure not adequate in all parts of the distribution system.

PHYSICAL AND CHEMICAL RESULTS

ARSENIC (0.01)*	<.005	FLUORIDE (1.4 to 2.4) **	<.10	pH	7.9
(0.05)**		IRON (0.3)*	.024	SELENIUM (0.01)**	<.005
BARIUM (1.0)**	<.05	LEAD (0.05)**	.000	SILVER (0.05)**	.000
CADMIUM (0.01)**	.000	M.B.A.S. (0.5)*	<.250	SULFATE (250)*	< 25.
CHLORIDE (250)*	<10.	MANGANESE (0.05)*	.000	TOTAL DISSOLVED SOLIDS (500)*	134.
CHROMIUM (.05)**	.000	MERCURY	.0006	TURBIDITY (5 s.u.)*	.1
COLOR (15 s.u.)*	3	NITRATE (45)*	<1.0	ZINC (5.0)*	.150
COPPER (1.0)*	.011				

*RECOMMENDED LIMIT **MANDATORY LIMIT
ALL VALUES ARE MILLIGRAMS PER LITER UNLESS OTHERWISE NOTED.

BACTERIOLOGICAL RESULTS

	COLIFORM/100 ml	FECAL COLIFORM/100 ml
RAW WATER		
DISTRIBUTION #1	0	0
DISTRIBUTION #2	0	0

REPORT ON INDIVIDUAL WATER SUPPLIES
U.S. FOREST SERVICE STUDY

NAME OF FOREST Arapaho National Forest
NAME OF SUPPLY Tenderfoot Mountain
TREATMENT none
DATE OF SURVEY 8/8/73
STORAGE Pressure tank
SOURCE well

BACTERIOLOGICAL QUALITY
NUMBER OF MONTHS IN PAST YEAR OF OPERATION THAT NO BACTERIOLOGICAL SAMPLES WERE TAKEN. 1
NUMBER OF MONTHS IN PAST YEAR OF OPERATION THAT ONE BACTERIOLOGICAL SAMPLE WAS TAKEN. 0
NUMBER OF MONTHS WHEN THE BACTERIOLOGICAL LIMITS OF THE DWS WERE NOT MET. 0

CHEMICAL QUALITY
DWS MANDATORY LIMITS FAILED
DWS RECOMMENDED LIMITS FAILED Iron, Manganese

SANITARY CONDITIONS
IS THE SOURCE PROTECTION ADEQUATE? YES x NO ___

IS OPERATION AND CONTROL ADEQUATE? YES x NO ___

IS THE WATER SYSTEM CAPABLE OF DELIVERING A CONTINUOUS SUPPLY OF SAFE WATER WITHOUT MAJOR IMPROVEMENTS? YES ___ NO x

PHYSICAL AND CHEMICAL RESULTS

ARSENIC (0.01)*	<.005	FLUORIDE (1.4 to 2.4) **	.30	pH	7.4
(0.05)**		IRON (0.3)*	3.500	SELENIUM (0.01)**	<.005
BARIUM (1.0)**	<.05	LEAD (0.05)**	.000	SILVER (0.05)**	.000
CADMIUM (0.01)**	.000	M.B.A.S. (0.5)*	<.250	SULFATE (250)*	<25.
CHLORIDE (250)*	<10.	MANGANESE (0.05)*	.160	TOTAL DISSOLVED SOLIDS (500)*	73.
CHROMIUM (.05)**	.000	MERCURY	<.0005	TURBIDITY (5 s.u.)*	.5
COLOR (15 s.u.)*	8	NITRATE (45)*	1.0	ZINC (5.0)*	.440
COPPER (1.0)*	.000				

*RECOMMENDED LIMIT **MANDATORY LIMIT
ALL VALUES ARE MILLIGRAMS PER LITER UNLESS OTHERWISE NOTED.

BACTERIOLOGICAL RESULTS

	COLIFORM/100 ml	FECAL COLIFORM/100 ml
RAW WATER		
DISTRIBUTION #1	0	0
DISTRIBUTION #2	0	0

REPORT ON INDIVIDUAL WATER SUPPLIES
U.S. FOREST SERVICE STUDY

NAME OF FOREST Arapaho National Forest
NAME OF SUPPLY Arapaho Springs
TREATMENT none
DATE OF SURVEY 8/6/73
STORAGE none
SOURCE spring

BACTERIOLOGICAL QUALITY

NUMBER OF MONTHS IN PAST YEAR OF OPERATION THAT NO BACTERIOLOGICAL SAMPLES WERE TAKEN. 2

NUMBER OF MONTHS IN PAST YEAR OF OPERATION THAT ONE BACTERIOLOGICAL SAMPLE WAS TAKEN. 1

NUMBER OF MONTHS WHEN THE BACTERIOLOGICAL LIMITS OF THE DWS WERE NOT MET. 0

CHEMICAL QUALITY

DWS MANDATORY LIMITS FAILED
DWS RECOMMENDED LIMITS FAILED

SANITARY CONDITIONS

IS THE SOURCE PROTECTION ADEQUATE? YES ___ NO x

Source too close to road.

IS OPERATION AND CONTROL ADEQUATE? YES x NO ___

IS THE WATER SYSTEM CAPABLE OF DELIVERING A CONTINUOUS SUPPLY OF SAFE WATER WITHOUT MAJOR IMPROVEMENTS? YES ___ NO x

Source protection needs improvement.

PHYSICAL AND CHEMICAL RESULTS

ARSENIC (0.01)* (0.05)**	<.005	FLUORIDE (1.4 to 2.4) **	<.10	pH	7.6
BARIUM (1.0)**	<.05	IRON (0.3)*	.280	SELENIUM (0.01)**	<.005
CADMIUM (0.01)**	.000	LEAD (0.05)**	.000	SILVER (0.05)**	.000
CHLORIDE (250)*	<10.	M.B.A.S. (0.5)*	<.250	SULFATE (250)*	<25.
CHROMIUM (.05)**	.000	MANGANESE (0.05)*	.010	TOTAL DISSOLVED SOLIDS (500)*	80.
COLOR (15 s.u.)*	3	MERCURY	<.0005	TURBIDITY (5 s.u.)*	.3
COPPER (1.0)*	.000	NITRATE (45)*	<1.0	ZINC (5.0)*	.540

*RECOMMENDED LIMIT **MANDATORY LIMIT
ALL VALUES ARE MILLIGRAMS PER LITER UNLESS OTHERWISE NOTED.

BACTERIOLOGICAL RESULTS

	COLIFORM/100 ml	FECAL COLIFORM/100 ml
RAW WATER		
DISTRIBUTION #1	0	0
DISTRIBUTION #2		

REPORT ON INDIVIDUAL WATER SUPPLIES
U.S. FOREST SERVICE STUDY

NAME OF FOREST Arapaho National Forest
NAME OF SUPPLY Sqaw Pass
TREATMENT none
DATE OF SURVEY 8/16/73
STORAGE none
SOURCE spring

BACTERIOLOGICAL QUALITY

NUMBER OF MONTHS IN PAST YEAR OF OPERATION THAT NO BACTERIOLOGICAL SAMPLES WERE TAKEN. 2

NUMBER OF MONTHS IN PAST YEAR OF OPERATION THAT ONE BACTERIOLOGICAL SAMPLE WAS TAKEN. 1

NUMBER OF MONTHS WHEN THE BACTERIOLOGICAL LIMITS OF THE DWS WERE NOT MET. 0

CHEMICAL QUALITY

DWS MANDATORY LIMITS FAILED
DWS RECOMMENDED LIMITS FAILED

SANITARY CONDITIONS

IS THE SOURCE PROTECTION ADEQUATE? YES x NO ___

IS OPERATION AND CONTROL ADEQUATE? YES x NO ___

IS THE WATER SYSTEM CAPABLE OF DELIVERING A CONTINUOUS SUPPLY OF SAFE WATER WITHOUT MAJOR IMPROVEMENTS? YES x NO ___

PHYSICAL AND CHEMICAL RESULTS

ARSENIC (0.01)* (0.05)**	<.005	FLUORIDE (1.4 to 2.4) **	<.10	pH	7.0
BARIUM (1.0)**	<.05	IRON (0.3)*	.130	SELENIUM (0.01)**	<.005
CADMIUM (0.01)**	.000	LEAD (0.05)**	.000	SILVER (0.05)**	.000
CHLORIDE (250)*	<10.	M.B.A.S. (0.5)*	<.250	SULFATE (250)*	<25.
CHROMIUM (.05)**	.000	MANGANESE (0.05)*	.000	TOTAL DISSOLVED SOLIDS (500)*	37.
COLOR (15 s.u.)*	3	MERCURY	<.0005	TURBIDITY (5 s.u.)*	.4
COPPER (1.0)*	.000	NITRATE (45)*	<1.0	ZINC (5.0)*	260.

*RECOMMENDED LIMIT **MANDATORY LIMIT
ALL VALUES ARE MILLIGRAMS PER LITER UNLESS OTHERWISE NOTED.

BACTERIOLOGICAL RESULTS

	COLIFORM/100 ml	FECAL COLIFORM/100 ml
RAW WATER		
DISTRIBUTION #1	0	0
DISTRIBUTION #2	0	0

REPORT ON INDIVIDUAL WATER SUPPLIES
U.S. FOREST SERVICE STUDY

NAME OF FOREST Arapaho National Forest
NAME OF SUPPLY Columbine Campground
TREATMENT Manual chlorination
DATE OF SURVEY 8/6/73
STORAGE underground steel tank
SOURCE stream

BACTERIOLOGICAL QUALITY
NUMBER OF MONTHS IN PAST YEAR OF OPERATION THAT NO BACTERIOLOGICAL SAMPLES WERE TAKEN. 3
NUMBER OF MONTHS IN PAST YEAR OF OPERATION THAT ONE BACTERIOLOGICAL SAMPLE WAS TAKEN. 1
NUMBER OF MONTHS WHEN THE BACTERIOLOGICAL LIMITS OF THE DWS WERE NOT MET. 1

CHEMICAL QUALITY
DWS MANDATORY LIMITS FAILED
DWS RECOMMENDED LIMITS FAILED

SANITARY CONDITIONS
IS THE SOURCE PROTECTION ADEQUATE? YES x NO ___

IS OPERATION AND CONTROL ADEQUATE? YES ___ NO x

Chlorine residual not checked daily. Automatic chlorination should be employed. Chlorine residual not present in all parts of distribution system.

IS THE WATER SYSTEM CAPABLE OF DELIVERING A CONTINUOUS SUPPLY OF SAFE WATER WITHOUT MAJOR IMPROVEMENTS? YES x NO ___

PHYSICAL AND CHEMICAL RESULTS

ARSENIC (0.01)* (0.05)**	<.005	FLUORIDE (1.4 to 2.4) **	<.10	pH	7.2
BARIUM (1.0)**	<.05	IRON (0.3)*	.150	SELENIUM (0.01)**	<.005
CADMIUM (0.01)**	.000	LEAD (0.05)**	.000	SILVER (0.05)**	.000
CHLORIDE (250)*	23.	M.B.A.S. (0.5)*	<.250	SULFATE (250)*	<25.
CHROMIUM (.05)**	.000	MANGANESE (0.05)*	.003	TOTAL DISSOLVED SOLIDS (500)*	92.
COLOR (15 s.u.)*	3	MERCURY	.0012	TURBIDITY (5 s.u.)*	.4
COPPER (1.0)*	.000	NITRATE (45)*	<1.0	ZINC (5.0)*	.140

*RECOMMENDED LIMIT **MANDATORY LIMIT
ALL VALUES ARE MILLIGRAMS PER LITER UNLESS OTHERWISE NOTED.

BACTERIOLOGICAL RESULTS

	COLIFORM/100 ml	FECAL COLIFORM/100 ml
RAW WATER		
DISTRIBUTION #1	0	0
DISTRIBUTION #2	0	0

REPORT ON INDIVIDUAL WATER SUPPLIES
U.S. FOREST SERVICE STUDY

NAME OF FOREST Arapaho National Forest
NAME OF SUPPLY Pickle Gulch
TREATMENT none
DATE OF SURVEY 8/6/73
STORAGE underground steel tank
SOURCE stream

BACTERIOLOGICAL QUALITY
NUMBER OF MONTHS IN PAST YEAR OF OPERATION THAT NO BACTERIOLOGICAL SAMPLES WERE TAKEN. 2
NUMBER OF MONTHS IN PAST YEAR OF OPERATION THAT ONE BACTERIOLOGICAL SAMPLE WAS TAKEN. 1
NUMBER OF MONTHS WHEN THE BACTERIOLOGICAL LIMITS OF THE DWS WERE NOT MET. 0

CHEMICAL QUALITY
DWS MANDATORY LIMITS FAILED
DWS RECOMMENDED LIMITS FAILED Iron

SANITARY CONDITIONS
IS THE SOURCE PROTECTION ADEQUATE? YES x NO ___

IS OPERATION AND CONTROL ADEQUATE? YES x NO ___

IS THE WATER SYSTEM CAPABLE OF DELIVERING A CONTINUOUS SUPPLY OF SAFE WATER WITHOUT MAJOR IMPROVEMENTS? YES ___ NO x

Storage tank vent and overflow not screened. Fire truck should not be used to fill storage tank. Disinfection unit should be installed with surface sources.

PHYSICAL AND CHEMICAL RESULTS

ARSENIC (0.01)* (0.05)**	<.005	FLUORIDE (1.4 to 2.4) **	<.10	pH	7.3
BARIUM (1.0)**	<.05	IRON (0.3)*	.460	SELENIUM (0.01)**	<.005
CADMIUM (0.01)**	.000	LEAD (0.05)**	.000	SILVER (0.05)**	.000
CHLORIDE (250)*	19.	M.B.A.S. (0.5)*	<.250	SULFATE (250)*	<25.
CHROMIUM (.05)**	.000	MANGANESE (0.05)*	.014	TOTAL DISSOLVED SOLIDS (500)*	80.
COLOR (15 s.u.)*	10	MERCURY	.0009	TURBIDITY (5 s.u.)*	.4
COPPER (1.0)*	.000	NITRATE (45)*	<1.0	ZINC (5.0)*	.270

*RECOMMENDED LIMIT **MANDATORY LIMIT
ALL VALUES ARE MILLIGRAMS PER LITER UNLESS OTHERWISE NOTED.

BACTERIOLOGICAL RESULTS

	COLIFORM/100 ml	FECAL COLIFORM/100 ml
RAW WATER		
DISTRIBUTION #1	0	0
DISTRIBUTION #2	0	0

REPORT ON INDIVIDUAL WATER SUPPLIES
U.S. FOREST SERVICE STUDY

NAME OF FOREST Arapaho National Forest
NAME OF SUPPLY Clear Lake Campground
TREATMENT none
DATE OF SURVEY 8/7/73
STORAGE none
SOURCE Handpumped well

BACTERIOLOGICAL QUALITY
NUMBER OF MONTHS IN PAST YEAR OF OPERATION THAT NO BACTERIOLOGICAL SAMPLES WERE TAKEN. 4
NUMBER OF MONTHS IN PAST YEAR OF OPERATION THAT ONE BACTERIOLOGICAL SAMPLE WAS TAKEN. 1
NUMBER OF MONTHS WHEN THE BACTERIOLOGICAL LIMITS OF THE DWS WERE NOT MET 0

CHEMICAL QUALITY
DWS MANDATORY LIMITS FAILED
DWS RECOMMENDED LIMITS FAILED

SANITARY CONDITIONS
IS THE SOURCE PROTECTION ADEQUATE? YES ___ NO x
Well seal broken.

IS OPERATION AND CONTROL ADEQUATE? YES x NO ___

IS THE WATER SYSTEM CAPABLE OF DELIVERING A CONTINUOUS SUPPLY OF SAFE WATER WITHOUT MAJOR IMPROVEMENTS? YES ___ NO x
Part of pump has broken off. Stuffing box needs repair.

PHYSICAL AND CHEMICAL RESULTS

ARSENIC (0.01)*	<.005	FLUORIDE (1.4 to 2.4) **	<.10	pH	7.6
(0.05)**				SELENIUM (0.01)**	<.005
BARIUM (1.0)**	<.05	IRON (0.3)*	.280	SILVER (0.05)**	.000
CADMIUM (0.01)**	.000	LEAD (0.05)**	.000	SULFATE (250)*	<25.
CHLORIDE (250)*	<10.	M.B.A.S. (0.5)*	<.250	TOTAL DISSOLVED	80.
CHROMIUM (.05)**	.000	MANGANESE (0.05)*	.010	SOLIDS (500)*	
COLOR (15 s.u.)*	3	MERCURY	<.0005	TURBIDITY (5 s.u.)*	.3
COPPER (1.0)*	.000	NITRATE (45)*	<1.0	ZINC (5.0)*	.540

*RECOMMENDED LIMIT **MANDATORY LIMIT
ALL VALUES ARE MILLIGRAMS PER LITER UNLESS OTHERWISE NOTED.

BACTERIOLOGICAL RESULTS

	COLIFORM/100 ml	FECAL COLIFORM/100 ml
RAW WATER		
DISTRIBUTION #1	1	0
DISTRIBUTION #2		

REPORT ON INDIVIDUAL WATER SUPPLIES
U.S. FOREST SERVICE STUDY

NAME OF FOREST Arapaho National Forest
NAME OF SUPPLY Cold Springs #2
TREATMENT none
DATE OF SURVEY 8/6/73
STORAGE none
SOURCE spring

BACTERIOLOGICAL QUALITY
NUMBER OF MONTHS IN PAST YEAR OF OPERATION THAT NO BACTERIOLOGICAL SAMPLES WERE TAKEN. 12
NUMBER OF MONTHS IN PAST YEAR OF OPERATION THAT ONE BACTERIOLOGICAL SAMPLE WAS TAKEN. 0
NUMBER OF MONTHS WHEN THE BACTERIOLOGICAL LIMITS OF THE DWS WERE NOT MET. 0

CHEMICAL QUALITY
DWS MANDATORY LIMITS FAILED
DWS RECOMMENDED LIMITS FAILED

SANITARY CONDITIONS
IS THE SOURCE PROTECTION ADEQUATE? YES ___ NO x
Source is in campground.

IS OPERATION AND CONTROL ADEQUATE? YES x NO ___

IS THE WATER SYSTEM CAPABLE OF DELIVERING A CONTINUOUS SUPPLY OF SAFE WATER WITHOUT MAJOR IMPROVEMENTS? YES ___ NO x
Source protection should be improved.

PHYSICAL AND CHEMICAL RESULTS

ARSENIC (0.01)*	<.005	FLUORIDE (1.4 to 2.4) **	<.10	pH	7.6
(0.05)**				SELENIUM (0.01)**	<.005
BARIUM (1.0)**	<.05	IRON (0.3)*	.160	SILVER (0.05)**	.000
CADMIUM (0.01)**	.000	LEAD (0.05)**	.000	SULFATE (250)*	<25.
CHLORIDE (250)*	<10	M.B.A.S. (0.5)*	<.250	TOTAL DISSOLVED	60.
CHROMIUM (.05)**	.000	MANGANESE (0.05)*	.000	SOLIDS (500)*	
COLOR (15 s.u.)*	3	MERCURY	.0006	TURBIDITY (5 s.u.)*	1.5
COPPER (1.0)*	.000	NITRATE (45)*	<1.0	ZINC (5.0)*	.048

*RECOMMENDED LIMIT **MANDATORY LIMIT
ALL VALUES ARE MILLIGRAMS PER LITER UNLESS OTHERWISE NOTED.

BACTERIOLOGICAL RESULTS

	COLIFORM/100 ml	FECAL COLIFORM/100 ml
RAW WATER		
DISTRIBUTION #1	0	0
DISTRIBUTION #2		

REPORT ON INDIVIDUAL WATER SUPPLIES
U.S. FOREST SERVICE STUDY

NAME OF FOREST Roqsevelt National Forest
NAME OF SUPPLY Olive Ridge
TREATMENT none
DATE OF SURVEY 8/9/73
STORAGE pressure tank
SOURCE well

BACTERIOLOGICAL QUALITY
NUMBER OF MONTHS IN PAST YEAR OF OPERATION THAT NO BACTERIOLOGICAL SAMPLES WERE TAKEN. 2
NUMBER OF MONTHS IN PAST YEAR OF OPERATION THAT ONE BACTERIOLOGICAL SAMPLE WAS TAKEN. 1
NUMBER OF MONTHS WHEN THE BACTERIOLOGICAL LIMITS OF THE DWS WERE NOT MET. 0

CHEMICAL QUALITY
DWS MANDATORY LIMITS FAILED Fluoride
DWS RECOMMENDED LIMITS FAILED Iron, Manganese

SANITARY CONDITIONS
IS THE SOURCE PROTECTION ADEQUATE? YES ___ NO x

Well is located 15 feet from sewage disposal tank. Top of well is buried, and well has no pitless adapter.

IS OPERATION AND CONTROL ADEQUATE? YES x NO ___

IS THE WATER SYSTEM CAPABLE OF DELIVERING A CONTINUOUS SUPPLY OF SAFE WATER WITHOUT MAJOR IMPROVEMENTS? YES ___ NO x

Source protection needs improvement.

PHYSICAL AND CHEMICAL RESULTS

ARSENIC (0.01)* <.005 (0.05)**	FLUORIDE (1.4 to 2.4) ** 3.00	pH	7.9
BARIUM (1.0)** <.05	IRON (0.3)* 1.500	SELENIUM (0.01)**	<.005
CADMIUM (0.01)** .000	LEAD (0.05)** .000	SILVER (0.05)**	.000
CHLORIDE (250)* <10.	M.B.A.S. (0.5)* <.250	SULFATE (250)*	<25.
CHROMIUM (.05)** .000	MANGANESE (0.05)* .170	TOTAL DISSOLVED SOLIDS (500)*	132.
COLOR (15 s.u.)* 13	MERCURY .0008	TURBIDITY (5 s.u.)*	2.6
COPPER (1.0)* .000	NITRATE (45)* <1.0	ZINC (5.0)*	.150

*RECOMMENDED LIMIT **MANDATORY LIMIT
ALL VAL. ES ARE MILLIGRAMS PER LITER UNLESS OTHERWISE NOTED.

BACTERIOLOGICAL RESULTS

	COLIFORM/100 ml	FECAL COLIFORM/100 ml
RAW WATER		
DISTRIBUTION #1	0	0
DISTRIBUTION #2	0	0

REPORT ON INDIVIDUAL WATER SUPPLIES
U.S. FOREST SERVICE STUDY

NAME OF FOREST Arapaho National Forest
NAME OF SUPPLY Clear Creek Picnic Area
TREATMENT manual chlorination
DATE OF SURVEY 8/7/73
STORAGE underground steel
SOURCE stream reservoir

BACTERIOLOGICAL QUALITY
NUMBER OF MONTHS IN PAST YEAR OF OPERATION THAT NO BACTERIOLOGICAL SAMPLES WERE TAKEN. 2
NUMBER OF MONTHS IN PAST YEAR OF OPERATION THAT ONE BACTERIOLOGICAL SAMPLE WAS TAKEN. 1
NUMBER OF MONTHS WHEN THE BACTERIOLOGICAL LIMITS OF THE DWS WERE NOT MET. 0

CHEMICAL QUALITY
DWS MANDATORY LIMITS FAILED
DWS RECOMMENDED LIMITS FAILED Iron

SANITARY CONDITIONS
IS THE SOURCE PROTECTION ADEQUATE? YES x NO ___

IS OPERATION AND CONTROL ADEQUATE? YES ___ NO x

Chlorine residual should be checked daily.

IS THE WATER SYSTEM CAPABLE OF DELIVERING A CONTINUOUS SUPPLY OF SAFE WATER WITHOUT MAJOR IMPROVEMENTS? YES ___ NO x

Drains from collection box and storage tank should be screened. The system runs dry twice per week.

PHYSICAL AND CHEMICAL RESULTS

ARSENIC (0.01)* <.005 (0.05)**	FLUORIDE (1.4 to 2.4) ** <.10	pH	6.8
BARIUM (1.0)** <.05	IRON (0.3)* .970	SELENIUM (0.01)**	<.005
CADMIUM (0.01)** .000	LEAD (0.05)** .000	SILVER (0.05)**	.000
CHLORIDE (250)* 14.	M.B.A.S. (0.5)* <.250	SULFATE (250)*	<25.
CHROMIUM (.05)** .000	MANGANESE (0.05)* .018	TOTAL DISSOLVED SOLIDS (500)*	50.
COLOR (15 s.u.)* 14	MERCURY .0009	TURBIDITY (5 s.u.)*	3.8
COPPER (1.0)* .000	NITRATE (45)* <1.0	ZINC (5.0)*	.086

*RECOMMENDED LIMIT **MANDATORY LIMIT
ALL VALUES ARE MILLIGRAMS PER LITER UNLESS OTHERWISE NOTED.

BACTERIOLOGICAL RESULTS

	COLIFORM/100 ml	FECAL COLIFORM/100 ml
RAW WATER		
DISTRIBUTION #1	0	0
DISTRIBUTION #2	0	0

REPORT ON INDIVIDUAL WATER SUPPLIES
U.S. FOREST SERVICE STUDY

NAME OF FOREST Roosevelt National Forest
NAME OF SUPPLY Camp Dick
TREATMENT chlorination
DATE OF SURVEY 8/18/73
STORAGE pressure tank
SOURCE spring

BACTERIOLOGICAL QUALITY
NUMBER OF MONTHS IN PAST YEAR OF OPERATION THAT NO BACTERIOLOGICAL SAMPLES WERE TAKEN. 0
NUMBER OF MONTHS IN PAST YEAR OF OPERATION THAT ONE BACTERIOLOGICAL SAMPLE WAS TAKEN. 1
NUMBER OF MONTHS WHEN THE BACTERIOLOGICAL LIMITS OF THE DWS WERE NOT MET. 0

CHEMICAL QUALITY
DWS MANDATORY LIMITS FAILED
DWS RECOMMENDED LIMITS FAILED Color, Iron

SANITARY CONDITIONS
IS THE SOURCE PROTECTION ADEQUATE? YES ___ NO x
Surface water runs continuously around spring box.

IS OPERATION AND CONTROL ADEQUATE? YES ___ NO x
Chlorine residual not checked daily.
Chlorine residual not present in distribution system.

IS THE WATER SYSTEM CAPABLE OF DELIVERING A CONTINUOUS SUPPLY OF SAFE WATER WITHOUT MAJOR IMPROVEMENTS? YES x NO ___

PHYSICAL AND CHEMICAL RESULTS

ARSENIC (0.01)*	<.005	FLUORIDE (1.4 to 2.4) **	<.10	pH	7.4
(0.05)**		IRON (0.3)*	.520	SELENIUM (0.01)**	<.005
BARIUM (1.0)**	<.05	LEAD (0.05)**	.000	SILVER (0.05)**	.000
CADMIUM (0.01)**	.000	M.B.A.S. (0.5)*	<.250	SULFATE (250)*	<25.
CHLORIDE (250)*	<10.	MANGANESE (0.05)*	.046	TOTAL DISSOLVED SOLIDS (500)*	62.
CHROMIUM (.05)**	.000	MERCURY	.0008	TURBIDITY (5 s.u.)*	.6
COLOR (15 s.u.)*	23	NITRATE (45)*	<1.0	ZINC (5.0)*	.500
COPPER (1.0)*	.000				

*RECOMMENDED LIMIT **MANDATORY LIMIT
ALL VALUES ARE MILLIGRAMS PER LITER UNLESS OTHERWISE NOTED.

BACTERIOLOGICAL RESULTS

	COLIFORM/100 ml	FECAL COLIFORM/100 ml
RAW WATER		
DISTRIBUTION #1	0	0
DISTRIBUTION #2	0	0

REPORT ON INDIVIDUAL WATER SUPPLIES
U.S. FOREST SERVICE STUDY

NAME OF FOREST Roosevelt National Forest
NAME OF SUPPLY Peaceful Valley
TREATMENT Chlorination
DATE OF SURVEY 8/8/73
STORAGE Pressure Tank
SOURCE Spring

BACTERIOLOGICAL QUALITY
NUMBER OF MONTHS IN PAST YEAR OF OPERATION THAT NO BACTERIOLOGICAL SAMPLES WERE TAKEN. 2
NUMBER OF MONTHS IN PAST YEAR OF OPERATION THAT ONE BACTERIOLOGICAL SAMPLE WAS TAKEN. 1
NUMBER OF MONTHS WHEN THE BACTERIOLOGICAL LIMITS OF THE DWS WERE NOT MET. 1

CHEMICAL QUALITY
DWS MANDATORY LIMITS FAILED
DWS RECOMMENDED LIMITS FAILED

SANITARY CONDITIONS
IS THE SOURCE PROTECTION ADEQUATE? YES x NO ___

IS OPERATION AND CONTROL ADEQUATE? YES ___ NO x
Chlorine residual not checked daily.
Chlorine residuals not present in distribution system.

IS THE WATER SYSTEM CAPABLE OF DELIVERING A CONTINUOUS SUPPLY OF SAFE WATER WITHOUT MAJOR IMPROVEMENTS? YES x NO ___

PHYSICAL AND CHEMICAL RESULTS

ARSENIC (0.01)*	<.005	FLUORIDE (1.4 to 2.4) **	.30	pH	7.6
(0.05)**		IRON (0.3)*	.036	SELENIUM (0.01)**	<.005
BARIUM (1.0)**	<.05	LEAD (0.05)**	.000	SILVER (0.05)**	.000
CADMIUM (0.01)**	.000	M.B.A.S. (0.5)*	<.250	SULFATE (250)*	<25.
CHLORIDE (250)*	<10	MANGANESE (0.05)*	.000	TOTAL DISSOLVED SOLIDS (500)*	66.
CHROMIUM (.05)**	.000	MERCURY	.0006	TURBIDITY (5 s.u.)*	.2
COLOR (15 s.u.)*	3	NITRATE (45)*	1.0	ZINC (5.0)*	.140
COPPER (1.0)*	.000				

*RECOMMENDED LIMIT **MANDATORY LIMIT
ALL VALUES ARE MILLIGRAMS PER LITER UNLESS OTHERWISE NOTED.

BACTERIOLOGICAL RESULTS

	COLIFORM/100 ml	FECAL COLIFORM/100 ml
RAW WATER		
DISTRIBUTION #1	0	0
DISTRIBUTION #2	0	0

REPORT ON INDIVIDUAL WATER SUPPLIES
U.S. FOREST SERVICE STUDY

NAME OF FOREST **Roosevelt National Forest** DATE OF SURVEY **8/7/73**
NAME OF SUPPLY **Kelly Dahl** STORAGE **pressure tank**
TREATMENT **Chlorination** SOURCE **well**

BACTERIOLOGICAL QUALITY
NUMBER OF MONTHS IN PAST YEAR OF OPERATION THAT NO BACTERIOLOGICAL SAMPLES WERE TAKEN. 2
NUMBER OF MONTHS IN PAST YEAR OF OPERATION THAT ONE BACTERIOLOGICAL SAMPLE WAS TAKEN. 2
NUMBER OF MONTHS WHEN THE BACTERIOLOGICAL LIMITS OF THE DWS WERE NOT MET. 0

CHEMICAL QUALITY
DWS MANDATORY LIMITS FAILED
DWS RECOMMENDED LIMITS FAILED

SANITARY CONDITIONS
IS THE SOURCE PROTECTION ADEQUATE? YES ___ NO x
Hole in sanitary seal.

IS OPERATION AND CONTROL ADEQUATE? YES ___ NO x
Chlorine residuals should be checked daily.
Chlorine residual not present in distribution system.

IS THE WATER SYSTEM CAPABLE OF DELIVERING A CONTINUOUS SUPPLY OF SAFE WATER WITHOUT MAJOR IMPROVEMENTS? YES x NO ___

PHYSICAL AND CHEMICAL RESULTS

ARSENIC (0.01)*	<.005	FLUORIDE (1.4 to 2.4) **	.30	pH	8.0
(0.05)**				SELENIUM (0.01)**	.006
BARIUM (1.0)**	.13	IRON (0.3)*	.100	SILVER (0.05)**	.000
CADMIUM (0.01)**	.000	LEAD (0.05)**	.000	SULFATE (250)*	<25.
CHLORIDE (250)*	<10.	M.B.A.S. (0.5)*	<.250	TOTAL DISSOLVED SOLIDS (500)*	168.
CHROMIUM (.05)**	.000	MANGANESE (0.05)*	.050		
COLOR (15 s.u.)*	3	MERCURY	.0015	TURBIDITY (5 s.u.)*	.1
COPPER (1.0)*	.000	NITRATE (45)*	<1.0	ZINC (5.0)*	.200

*RECOMMENDED LIMIT **MANDATORY LIMIT
ALL VALUES ARE MILLIGRAMS PER LITER UNLESS OTHERWISE NOTED.

BACTERIOLOGICAL RESULTS

	COLIFORM/100 ml	FECAL COLIFORM/100 ml
RAW WATER		
DISTRIBUTION #1	0	0
DISTRIBUTION #2	0	0

REPORT ON INDIVIDUAL WATER SUPPLIES
U.S. FOREST SERVICE STUDY

NAME OF FOREST **Roosevelt National Forest** DATE OF SURVEY **8/8/73**
NAME OF SUPPLY **Rainbow Lakes** STORAGE **pressure tank**
TREATMENT **Chlorination** SOURCE **stream**

BACTERIOLOGICAL QUALITY
NUMBER OF MONTHS IN PAST YEAR OF OPERATION THAT NO BACTERIOLOGICAL SAMPLES WERE TAKEN. 1
NUMBER OF MONTHS IN PAST YEAR OF OPERATION THAT ONE BACTERIOLOGICAL SAMPLE WAS TAKEN. 2
NUMBER OF MONTHS WHEN THE BACTERIOLOGICAL LIMITS OF THE DWS WERE NOT MET. 1

CHEMICAL QUALITY
DWS MANDATORY LIMITS FAILED
DWS RECOMMENDED LIMITS FAILED Iron

SANITARY CONDITIONS
IS THE SOURCE PROTECTION ADEQUATE? YES x NO ___

IS OPERATION AND CONTROL ADEQUATE? YES ___ NO x
Chlorine residual not checked daily.
Chlorine residual not present in all parts of distribution system.

IS THE WATER SYSTEM CAPABLE OF DELIVERING A CONTINUOUS SUPPLY OF SAFE WATER WITHOUT MAJOR IMPROVEMENTS? YES x NO ___

PHYSICAL AND CHEMICAL RESULTS

ARSENIC (0.01)*	<.005	FLUORIDE (1.4 to 2.4) **	<.10	pH	7.0
(0.05)**				SELENIUM (0.01)**	<.005
BARIUM (1.0)**	<.05	IRON (0.3)*	.780	SILVER (0.05)**	.000
CADMIUM (0.01)**	.000	LEAD (0.05)**	.000	SULFATE (250)*	<25.
CHLORIDE (250)*	<10.	M.B.A.S. (0.5)*	<.250	TOTAL DISSOLVED SOLIDS (500)*	27.
CHROMIUM (.05)**	.000	MANGANESE (0.05)*	.000		
COLOR (15 s.u.)*	13	MERCURY	<.0005	TURBIDITY (5 s.u.)*	.1
COPPER (1.0)*	.000	NITRATE (45)*	<1.0	ZINC (5.0)*	3.800

*RECOMMENDED LIMIT **MANDATORY LIMIT
ALL VALUES ARE MILLIGRAMS PER LITER UNLESS OTHERWISE NOTED.

BACTERIOLOGICAL RESULTS

	COLIFORM/100 ml	FECAL COLIFORM/100 ml
RAW WATER		
DISTRIBUTION #1	0	0
DISTRIBUTION #2	0	0

REPORT ON INDIVIDUAL WATER SUPPLIES
U.S. FOREST SERVICE STUDY

NAME OF FOREST Pike National Forest
NAME OF SUPPLY Big Turkey
TREATMENT none
DATE OF SURVEY 8/14/73
STORAGE none
SOURCE handpumped well

BACTERIOLOGICAL QUALITY
NUMBER OF MONTHS IN PAST YEAR OF OPERATION THAT NO BACTERIOLOGICAL SAMPLES WERE TAKEN.
NUMBER OF MONTHS IN PAST YEAR OF OPERATION THAT ONE BACTERIOLOGICAL SAMPLE WAS TAKEN.
NUMBER OF MONTHS WHEN THE BACTERIOLOGICAL LIMITS OF THE DWS WERE NOT MET. ____

CHEMICAL QUALITY
DWS MANDATORY LIMITS FAILED Fluoride
DWS RECOMMENDED LIMITS FAILED Iron

SANITARY CONDITIONS
IS THE SOURCE PROTECTION ADEQUATE? YES x NO ___

IS OPERATION AND CONTROL ADEQUATE? YES x NO ___

IS THE WATER SYSTEM CAPABLE OF DELIVERING A CONTINUOUS SUPPLY OF SAFE WATER WITHOUT MAJOR IMPROVEMENTS? YES x NO ___

PHYSICAL AND CHEMICAL RESULTS

ARSENIC (0.01)* (0.05)**	<.005	FLUORIDE (1.4 to 2.4) **	2.50	pH	7.6
BARIUM (1.0)**	<.05	IRON (0.3)*	3.000	SELENIUM (0.01)**	<.005
CADMIUM (0.01)**	.000	LEAD (0.05)**	.000	SILVER (0.05)**	.000
CHLORIDE (250)*	<10.	M.B.A.S. (0.5)*	<.250	SULFATE (250)*	< 25.
CHROMIUM (.05)**	.000	MANGANESE (0.05)*	.043	TOTAL DISSOLVED SOLIDS (500)*	130.
COLOR (15 s.u.)*	3	MERCURY	.0008	TURBIDITY (5 s.u.)*	2.0
COPPER (1.0)*	.000	NITRATE (45)*	<1.0	ZINC (5.0)*	.170

*RECOMMENDED LIMIT **MANDATORY LIMIT
ALL VALUES ARE MILLIGRAMS PER LITER UNLESS OTHERWISE NOTED.

BACTERIOLOGICAL RESULTS

	COLIFORM/100 ml	FECAL COLIFORM/100 ml
RAW WATER		
DISTRIBUTION #1	0	0
DISTRIBUTION #2		

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REPORT ON INDIVIDUAL WATER SUPPLIES
U.S. FOREST SERVICE STUDY

NAME OF FOREST Pike National Forest
NAME OF SUPPLY Happy Meadows
TREATMENT none
DATE OF SURVEY 8/14/73
STORAGE none
SOURCE handpumped well

BACTERIOLOGICAL QUALITY
NUMBER OF MONTHS IN PAST YEAR OF OPERATION THAT NO BACTERIOLOGICAL SAMPLES WERE TAKEN. 2
NUMBER OF MONTHS IN PAST YEAR OF OPERATION THAT ONE BACTERIOLOGICAL SAMPLE WAS TAKEN. 3
NUMBER OF MONTHS WHEN THE BACTERIOLOGICAL LIMITS OF THE DWS WERE NOT MET. 0

CHEMICAL QUALITY
DWS MANDATORY LIMITS FAILED
DWS RECOMMENDED LIMITS FAILED Iron, Manganese, Total Dissolved Solids

SANITARY CONDITIONS
IS THE SOURCE PROTECTION ADEQUATE? YES ___ NO x
No sanitary seal; bolts on casing were loose.

IS OPERATION AND CONTROL ADEQUATE? YES ___ NO x
Bolts on casing were loose indicating a lack of proper maintenance.

IS THE WATER SYSTEM CAPABLE OF DELIVERING A CONTINUOUS SUPPLY OF SAFE WATER WITHOUT MAJOR IMPROVEMENTS? YES ___ NO x
Sanitary seal should be improved.

PHYSICAL AND CHEMICAL RESULTS

ARSENIC (0.01)* (0.05)**	<.005	FLUORIDE (1.4 to 2.4) **	1.50	pH	7.8
BARIUM (1.0)**	.40	IRON (0.3)*	7.600	SELENIUM (0.01)**	<.005
CADMIUM (0.01)**	.000	LEAD (0.05)**	.000	SILVER (0.05)**	.000
CHLORIDE (250)*	200	M.B.A.S. (0.5)*	.460	SULFATE (250)*	160
CHROMIUM (.05)**	.00	MANGANESE (0.05)*	.880	TOTAL DISSOLVED SOLIDS (500)*	1100
COLOR (15 s.u.)*	3	MERCURY	.0009	TURBIDITY (5 s.u.)*	1.2
COPPER (1.0)*	.076	NITRATE (45)*	<1.0	ZINC (5.0)*	.110

*RECOMMENDED LIMIT **MANDATORY LIMIT
ALL VALUES ARE MILLIGRAMS PER LITER UNLESS OTHERWISE NOTED.

BACTERIOLOGICAL RESULTS

	COLIFORM/100 ml	FECAL COLIFORM/100 ml
RAW WATER		
DISTRIBUTION #1	0	0
DISTRIBUTION #2		

REPORT ON INDIVIDUAL WATER SUPPLIES
U.S. FOREST SERVICE STUDY

NAME OF FOREST **Pike National Forest** DATE OF SURVEY **8/9/73**
NAME OF SUPPLY **Indian Creek Campground** STORAGE **concrete underground tank**
TREATMENT **none** SOURCE **spring**

BACTERIOLOGICAL QUALITY
NUMBER OF MONTHS IN PAST YEAR OF OPERATION THAT NO BACTERIOLOGICAL SAMPLES WERE TAKEN. 2
NUMBER OF MONTHS IN PAST YEAR OF OPERATION THAT ONE BACTERIOLOGICAL SAMPLE WAS TAKEN. 3
NUMBER OF MONTHS WHEN THE BACTERIOLOGICAL LIMITS OF THE DWS WERE NOT MET. 0

CHEMICAL QUALITY
DWS MANDATORY LIMITS FAILED
DWS RECOMMENDED LIMITS FAILED - **Color, Turbidity**

SANITARY CONDITIONS
IS THE SOURCE PROTECTION ADEQUATE? YES ___ NO x
Overflow and drain pipes should have screens.

IS OPERATION AND CONTROL ADEQUATE? YES x NO ___

IS THE WATER SYSTEM CAPABLE OF DELIVERING A CONTINUOUS SUPPLY OF SAFE WATER WITHOUT MAJOR IMPROVEMENTS? YES ___ NO x
Drain of storage tank should be screened.

PHYSICAL AND CHEMICAL RESULTS

ARSENIC (0.01)*	<.005	FLUORIDE (1.4 to 2.4) **	1.10	pH	7.5
(0.05)**				SELENIUM (0.01)**	<.005
BARIUM (1.0)**	<.05	IRON (0.3)*	.310	SILVER (0.05)**	.000
CADMIUM (0.01)**	.000	LEAD (0.05)**	.000	SULFATE (250)*	<25.
CHLORIDE (250)*	<10.	M.B.A.S. (0.5)*	<.250	TOTAL DISSOLVED SOLIDS (500)*	108.
CHROMIUM (.05)**	.000	MANGANESE (0.05)*	.010		
COLOR (15 s.u.)*	43	MERCURY	.0012	TURBIDITY (5 s.u.)*	7.8
COPPER (1.0)*	.000	NITRATE (45)*	<1.0	ZINC (5.0)*	2.100

*RECOMMENDED LIMIT **MANDATORY LIMIT
ALL VALUES ARE MILLIGRAMS PER LITER UNLESS OTHERWISE NOTED.

BACTERIOLOGICAL RESULTS

	COLIFORM/100 ml	FECAL COLIFORM/100 ml
RAW WATER		
DISTRIBUTION #1	0	0
DISTRIBUTION #2	2	1

REPORT ON INDIVIDUAL WATER SUPPLIES
U.S. FOREST SERVICE STUDY

NAME OF FOREST **Pike National Forest** DATE OF SURVEY **8/14/73**
NAME OF SUPPLY **Wildhorn** STORAGE **none**
TREATMENT **none** SOURCE **handpumped well**

BACTERIOLOGICAL QUALITY
NUMBER OF MONTHS IN PAST YEAR OF OPERATION THAT NO BACTERIOLOGICAL SAMPLES WERE TAKEN. 5
NUMBER OF MONTHS IN PAST YEAR OF OPERATION THAT ONE BACTERIOLOGICAL SAMPLE WAS TAKEN. 1
NUMBER OF MONTHS WHEN THE BACTERIOLOGICAL LIMITS OF THE DWS WERE NOT MET. 0

CHEMICAL QUALITY
DWS MANDATORY LIMITS FAILED
DWS RECOMMENDED LIMITS FAILED

SANITARY CONDITIONS
IS THE SOURCE PROTECTION ADEQUATE? YES x NO ___

IS OPERATION AND CONTROL ADEQUATE? YES x NO ___

IS THE WATER SYSTEM CAPABLE OF DELIVERING A CONTINUOUS SUPPLY OF SAFE WATER WITHOUT MAJOR IMPROVEMENTS? YES x NO ___

PHYSICAL AND CHEMICAL RESULTS

ARSENIC (0.01)*	<.005	FLUORIDE (1.4 to 2.4) **	1.80	pH	7.2
(0.05)**				SELENIUM (0.01)**	<.005
BARIUM (1.0)**	<.05	IRON (0.3)*	.090	SILVER (0.05)**	.000
CADMIUM (0.01)**	.000	LEAD (0.05)**	.000	SULFATE (250)*	< 25.
CHLORIDE (250)*	<10.	M.B.A.S. (0.5)*	<.250	TOTAL DISSOLVED SOLIDS (500)*	81.
CHROMIUM (.05)**	.000	MANGANESE (0.05)*	.007		
COLOR (15 s.u.)*	3	MERCURY	<.0005	TURBIDITY (5 s.u.)*	.3
COPPER (1.0)*	.000	NITRATE (45)*	2.0	ZINC (5.0)*	.450

*RECOMMENDED LIMIT **MANDATORY LIMIT
ALL VALUES ARE MILLIGRAMS PER LITER UNLESS OTHERWISE NOTED.

BACTERIOLOGICAL RESULTS

	COLIFORM/100 ml	FECAL COLIFORM/100 ml
RAW WATER		
DISTRIBUTION #1	0	0
DISTRIBUTION #2		

REPORT ON INDIVIDUAL WATER SUPPLIES
U.S. FOREST SERVICE STUDY

NAME OF FOREST Pike National Forest
NAME OF SUPPLY Old Springdale
TREATMENT none
DATE OF SURVEY 8/13/73
STORAGE none
SOURCE spring

BACTERIOLOGICAL QUALITY
NUMBER OF MONTHS IN PAST YEAR OF OPERATION THAT NO BACTERIOLOGICAL SAMPLES WERE TAKEN. 5
NUMBER OF MONTHS IN PAST YEAR OF OPERATION THAT ONE BACTERIOLOGICAL SAMPLE WAS TAKEN. 0
NUMBER OF MONTHS WHEN THE BACTERIOLOGICAL LIMITS OF THE DWS WERE NOT MET. 0

CHEMICAL QUALITY
DWS MANDATORY LIMITS FAILED - Fluoride
DWS RECOMMENDED LIMITS FAILED

SANITARY CONDITIONS
IS THE SOURCE PROTECTION ADEQUATE? YES ___ NO x
Springbox adjacent to road.

IS OPERATION AND CONTROL ADEQUATE? YES x NO ___

IS THE WATER SYSTEM CAPABLE OF DELIVERING A CONTINUOUS SUPPLY OF SAFE WATER WITHOUT MAJOR IMPROVEMENTS? YES ___ NO x
Source protection needs improvement.

PHYSICAL AND CHEMICAL RESULTS

ARSENIC (0.01)*	<.005	FLUORIDE (1.4 to 2.4) **	2.00	pH	7.4
(0.05)**				SELENIUM (0.01)**	<.005
BARIUM (1.0)**	<.05	IRON (0.3)*	.063	SILVER (0.05)**	.000
CADMIUM (0.01)**	.000	LEAD (0.05)**	.000	SULFATE (250)*	<25.
CHLORIDE (250)*	<10.	M.B.A.S. (0.5)*	<.250	TOTAL DISSOLVED	78.
CHROMIUM (.05)**	.000	MANGANESE (0.05)*	.007	SOLIDS (500)*	
COLOR (15 s.u.)*	3	MERCURY	.0007	TURBIDITY (5 s.u.)*	.5
COPPER (1.0)*	.000	NITRATE (45)*	2.0	ZINC (5.0)*	.048

*RECOMMENDED LIMIT **MANDATORY LIMIT
ALL VALUES ARE MILLIGRAMS PER LITER UNLESS OTHERWISE NOTED.

BACTERIOLOGICAL RESULTS

	COLIFORM/100 ml	FECAL COLIFORM/100 ml
RAW WATER		
DISTRIBUTION #1	0	0
DISTRIBUTION #2		

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REPORT ON INDIVIDUAL WATER SUPPLIES
U.S. FOREST SERVICE STUDY

NAME OF FOREST Pike National Forest
NAME OF SUPPLY Painted Rocks
TREATMENT none
DATE OF SURVEY 8/13/73
STORAGE steel tank
SOURCE spring

BACTERIOLOGICAL QUALITY
NUMBER OF MONTHS IN PAST YEAR OF OPERATION THAT NO BACTERIOLOGICAL SAMPLES WERE TAKEN. 3
NUMBER OF MONTHS IN PAST YEAR OF OPERATION THAT ONE BACTERIOLOGICAL SAMPLE WAS TAKEN. 1
NUMBER OF MONTHS WHEN THE BACTERIOLOGICAL LIMITS OF THE DWS WERE NOT MET. 1

CHEMICAL QUALITY
DWS MANDATORY LIMITS FAILED - Fluoride
DWS RECOMMENDED LIMITS FAILED

SANITARY CONDITIONS
IS THE SOURCE PROTECTION ADEQUATE? YES ___ NO x
Fencing and surface water control needed to prevent cattle from grating next to spring and drain standing water around spring.

IS OPERATION AND CONTROL ADEQUATE? YES x NO ___

IS THE WATER SYSTEM CAPABLE OF DELIVERING A CONTINUOUS SUPPLY OF SAFE WATER WITHOUT MAJOR IMPROVEMENTS? YES ___ NO x
Source protection needs improvement. Pressure is not adequate in all parts of the distribution system.

PHYSICAL AND CHEMICAL RESULTS

ARSENIC (0.01)*	<.005	FLUORIDE (1.4 to 2.4) **	2.40	pH	7.4
(0.05)**				SELENIUM (0.01)**	<.005
BARIUM (1.0)**	<.05	IRON (0.3)*	.063	SILVER (0.05)**	.000
CADMIUM (0.01)**	.000	LEAD (0.05)**	.000	SULFATE (250)*	<25.
CHLORIDE (250)*	<10.	M.B.A.S. (0.5)*	<.250	TOTAL DISSOLVED	78.
CHROMIUM (.05)**	.000	MANGANESE (0.05)*	.007	SOLIDS (500)*	
COLOR (15 s.u.)*	3	MERCURY	.0007	TURBIDITY (5 s.u.)*	.5
COPPER (1.0)*	.000	NITRATE (45)*	2.0	ZINC (5.0)*	.048

*RECOMMENDED LIMIT **MANDATORY LIMIT
ALL VALUES ARE MILLIGRAMS PER LITER UNLESS OTHERWISE NOTED.

BACTERIOLOGICAL RESULTS

	COLIFORM/100 ml	FECAL COLIFORM/100 ml
RAW WATER		
DISTRIBUTION #1	0	0
DISTRIBUTION #2		

REPORT ON INDIVIDUAL WATER SUPPLIES
U.S. FOREST SERVICE STUDY

NAME OF FOREST Pike National Forest
NAME OF SUPPLY Round Mountain C.G.
TREATMENT chlorination
DATE OF SURVEY 8/13/73
STORAGE steel underground tank
SOURCE well

BACTERIOLOGICAL QUALITY

NUMBER OF MONTHS IN PAST YEAR OF OPERATION THAT NO BACTERIOLOGICAL SAMPLES WERE TAKEN. 1

NUMBER OF MONTHS IN PAST YEAR OF OPERATION THAT ONE BACTERIOLOGICAL SAMPLE WAS TAKEN. 2

NUMBER OF MONTHS WHEN THE BACTERIOLOGICAL LIMITS OF THE DWS WERE NOT MET. 2

CHEMICAL QUALITY

DWS MANDATORY LIMITS FAILED

DWS RECOMMENDED LIMITS FAILED

SANITARY CONDITIONS

IS THE SOURCE PROTECTION ADEQUATE? YES ___ NO x

Vent hood partially blocked with a wooden plug.

IS OPERATION AND CONTROL ADEQUATE? YES ___ NO x

Chlorine residual not checked daily. No chlorine residual in distribution system on day of survey.

IS THE WATER SYSTEM CAPABLE OF DELIVERING A CONTINUOUS SUPPLY OF SAFE WATER WITHOUT MAJOR IMPROVEMENTS? YES ___ NO ___

Storage tank not properly vented.

PHYSICAL AND CHEMICAL RESULTS

ARSENIC (0.01)*	<.005	FLUORIDE (1.4 to 2.4)**	1.50	pH	7.8
(0.05)**				SELENIUM (0.01)**	<.005
BARIUM (1.0)**	.16	IRON (0.3)*	.140	SILVER (0.05)**	.000
CADMIUM (0.01)**	.000	LEAD (0.05)**	.000	SULFATE (250)*	140.
CHLORIDE (250)*	19.	M.B.A.S. (0.5)*	<.250	TOTAL DISSOLVED SOLIDS (500)*	376.
CHROMIUM (.05)**	.000	MANGANESE (0.05)*	.040		
COLOR (15 s.u.)*	8	MERCURY	.0010	TURBIDITY (5 s.u.)*	.1
COPPER (1.0)*	.000	NITRATE (45)*	1.0	ZINC (5.0)*	2.600

*RECOMMENDED LIMIT **MANDATORY LIMIT
ALL VALUES ARE MILLIGRAMS PER LITER UNLESS OTHERWISE NOTED.

BACTERIOLOGICAL RESULTS

	COLIFORM/100 ml	FECAL COLIFORM/100 ml
RAW WATER		
DISTRIBUTION #1	0	0
DISTRIBUTION #2	0	0

REPORT ON INDIVIDUAL WATER SUPPLIES
U.S. FOREST SERVICE STUDY

NAME OF FOREST Pike National Forest
NAME OF SUPPLY Manitou Park
TREATMENT none
DATE OF SURVEY 8/13/73
STORAGE steel & concrete tanks
SOURCE wells

BACTERIOLOGICAL QUALITY

NUMBER OF MONTHS IN PAST YEAR OF OPERATION THAT NO BACTERIOLOGICAL SAMPLES WERE TAKEN. 3

NUMBER OF MONTHS IN PAST YEAR OF OPERATION THAT ONE BACTERIOLOGICAL SAMPLE WAS TAKEN. 0

NUMBER OF MONTHS WHEN THE BACTERIOLOGICAL LIMITS OF THE DWS WERE NOT MET. 0

CHEMICAL QUALITY

DWS MANDATORY LIMITS FAILED Fluoride

DWS RECOMMENDED LIMITS FAILED

SANITARY CONDITIONS

IS THE SOURCE PROTECTION ADEQUATE? YES ___ NO x

Wells need sanitary seals and screens on the vents.

IS OPERATION AND CONTROL ADEQUATE? YES ___ NO x

Cross-connections should have been corrected.

IS THE WATER SYSTEM CAPABLE OF DELIVERING A CONTINUOUS SUPPLY OF SAFE WATER WITHOUT MAJOR IMPROVEMENTS? YES ___ NO x

Cross-connections at cattle feed tank and at a third unused well. Storage tank vent should be screened.

PHYSICAL AND CHEMICAL RESULTS

ARSENIC (0.01)*	<.005	FLUORIDE (1.4 to 2.4)**	2.20	pH	7.7
(0.05)**				SELENIUM (0.01)**	<.005
BARIUM (1.0)**	.19	IRON (0.3)*	.018	SILVER (0.05)**	.000
CADMIUM (0.01)**	.000	LEAD (0.05)**	.000	SULFATE (250)*	<25.
CHLORIDE (250)*	<10.	M.B.A.S. (0.5)*	<.250	TOTAL DISSOLVED SOLIDS (500)*	210.
CHROMIUM (.05)**	.000	MANGANESE (0.05)*	.000		
COLOR (15 s.u.)*	3	MERCURY	.0010	TURBIDITY (5 s.u.)*	.1
COPPER (1.0)*	.000	NITRATE (45)*	4.0	ZINC (5.0)*	.230

*RECOMMENDED LIMIT **MANDATORY LIMIT
ALL VALUES ARE MILLIGRAMS PER LITER UNLESS OTHERWISE NOTED.

BACTERIOLOGICAL RESULTS

	COLIFORM/100 ml	FECAL COLIFORM/100 ml
RAW WATER		
DISTRIBUTION #1	0	0
DISTRIBUTION #2	0	0

REPORT ON INDIVIDUAL WATER SUPPLIES
U.S. FOREST SERVICE STUDY

NAME OF FOREST Pike National Forest
NAME OF SUPPLY Blue Mountain Campground
TREATMENT none
DATE OF SURVEY 8/14/73
STORAGE steel underground tank
SOURCE spring

BACTERIOLOGICAL QUALITY
NUMBER OF MONTHS IN PAST YEAR OF OPERATION THAT NO BACTERIOLOGICAL SAMPLES WERE TAKEN. 1
NUMBER OF MONTHS IN PAST YEAR OF OPERATION THAT ONE BACTERIOLOGICAL SAMPLE WAS TAKEN. 3
NUMBER OF MONTHS WHEN THE BACTERIOLOGICAL LIMITS OF THE DWS WERE NOT MET. 1

CHEMICAL QUALITY
DWS MANDATORY LIMITS FAILED Fluoride
DWS RECOMMENDED LIMITS FAILED

SANITARY CONDITIONS
IS THE SOURCE PROTECTION ADEQUATE? YES ___ NO x
Surface drainage controlled at spring.

IS OPERATION AND CONTROL ADEQUATE? YES x NO ___

IS THE WATER SYSTEM CAPABLE OF DELIVERING A CONTINUOUS SUPPLY OF SAFE WATER WITHOUT MAJOR IMPROVEMENTS? YES x NO ___

PHYSICAL AND CHEMICAL RESULTS

ARSENIC (0.01)*	<.005	FLUORIDE (1.4 to 2.4) **	2.10	pH	7.8
(0.05)**		IRON (0.3)*	.103	SELENIUM (0.01)**	<.005
BARIUM (1.0)**	<.05	LEAD (0.05)**	.000	SILVER (0.05)**	.000
CADMIUM (0.01)**	.000	M.B.A.S. (0.5)*	<.250	SULFATE (250)*	<25.
CHLORIDE (250)*	<10.	MANGANESE (0.05)*	.000	TOTAL DISSOLVED SOLIDS (500)*	210.
CHROMIUM (.05)**	.000	MERCURY	.0008	TURBIDITY (5 s.u.)*	.2
COLOR (15 s.u.)*	3	NITRATE (45)*	3.0	ZINC (5.0)*	.200
COPPER (1.0)*	.000				

*RECOMMENDED LIMIT **MANDATORY LIMIT
ALL VALUES ARE MILLIGRAMS PER LITER UNLESS OTHERWISE NOTED.

BACTERIOLOGICAL RESULTS

	COLIFORM/100 ml	FECAL COLIFORM/100 ml
RAW WATER		
DISTRIBUTION #1	0	0
DISTRIBUTION #2	0	0

REPORT ON INDIVIDUAL WATER SUPPLIES
U.S. FOREST SERVICE STUDY

NAME OF FOREST Pike National Forest
NAME OF SUPPLY Wilkerson Pass
TREATMENT Sand and carbon filtration chlorination
DATE OF SURVEY 8/13/73
STORAGE underground concrete
SOURCE reservoir & hydrocells Lake

BACTERIOLOGICAL QUALITY
NUMBER OF MONTHS IN PAST YEAR OF OPERATION THAT NO BACTERIOLOGICAL SAMPLES WERE TAKEN. 1
NUMBER OF MONTHS IN PAST YEAR OF OPERATION THAT ONE BACTERIOLOGICAL SAMPLE WAS TAKEN. 4
NUMBER OF MONTHS WHEN THE BACTERIOLOGICAL LIMITS OF THE DWS WERE NOT MET. 0

CHEMICAL QUALITY
DWS MANDATORY LIMITS FAILED
DWS RECOMMENDED LIMITS FAILED

SANITARY CONDITIONS
IS THE SOURCE PROTECTION ADEQUATE? YES ___ ? NO ___

IS OPERATION AND CONTROL ADEQUATE? YES ___ NO x
Cross-connection should have been corrected.

IS THE WATER SYSTEM CAPABLE OF DELIVERING A CONTINUOUS SUPPLY OF SAFE WATER WITHOUT MAJOR IMPROVEMENTS? YES ___ NO x
Cross-connection in treatment plant.

PHYSICAL AND CHEMICAL RESULTS

ARSENIC (0.01)*	<.005	FLUORIDE (1.4 to 2.4) **	.20	pH	7.4
(0.05)**		IRON (0.3)*	.076	SELENIUM (0.01)**	<.005
BARIUM (1.0)**	<.05	LEAD (0.05)**	.000	SILVER (0.05)**	.000
CADMIUM (0.01)**	.000	M.B.A.S. (0.5)*	<.250	SULFATE (250)*	<25.
CHLORIDE (250)*	<10.	MANGANESE (0.05)*	.000	TOTAL DISSOLVED SOLIDS (500)*	69.
CHROMIUM (.05)**	.000	MERCURY	<.0005	TURBIDITY (5 s.u.)*	.3
COLOR (15 s.u.)*	3	NITRATE (45)*	<1.0	ZINC (5.0)*	.870
COPPER (1.0)*	.000				

*RECOMMENDED LIMIT **MANDATORY LIMIT
ALL VALUES ARE MILLIGRAMS PER LITER UNLESS OTHERWISE NOTED.

BACTERIOLOGICAL RESULTS

	COLIFORM/100 ml	FECAL COLIFORM/100 ml
RAW WATER		
DISTRIBUTION #1	0	0
DISTRIBUTION #2	0	0

REPORT ON INDIVIDUAL WATER SUPPLIES
U.S. FOREST SERVICE STUDY

NAME OF FOREST Pike National Forest
NAME OF SUPPLY Spruce Grove Campground
TREATMENT none
DATE OF SURVEY 8/14/73
STORAGE steel underground tank
SOURCE spring

BACTERIOLOGICAL QUALITY
NUMBER OF MONTHS IN PAST YEAR OF OPERATION THAT NO BACTERIOLOGICAL SAMPLES WERE TAKEN. 2
NUMBER OF MONTHS IN PAST YEAR OF OPERATION THAT ONE BACTERIOLOGICAL SAMPLE WAS TAKEN. 3
NUMBER OF MONTHS WHEN THE BACTERIOLOGICAL LIMITS OF THE DWS WERE NOT MET. 0

CHEMICAL QUALITY
DWS MANDATORY LIMITS FAILED - Fluoride
DWS RECOMMENDED LIMITS FAILED

SANITARY CONDITIONS
IS THE SOURCE PROTECTION ADEQUATE? YES x NO ___

IS OPERATION AND CONTROL ADEQUATE? YES x NO ___

IS THE WATER SYSTEM CAPABLE OF DELIVERING A CONTINUOUS SUPPLY OF SAFE WATER WITHOUT MAJOR IMPROVEMENTS? YES ___ NO x

Pressure in system not adequate.

PHYSICAL AND CHEMICAL RESULTS

ARSENIC (0.01)*	<.005	FLUORIDE (1.4 to 2.4)**	4.40	pH	7.6
(0.05)**		IRON (0.3)*	.200	SELENIUM (0.01)**	<.005
BARIUM (1.0)**	<.05	LEAD (0.05)**	.000	SILVER (0.05)**	.000
CADMIUM (0.01)**	.000	M.B.A.S. (0.5)*	<.250	SULFATE (250)*	<25.
CHLORIDE (250)*	<10.	MANGANESE (0.05)*	.016	TOTAL DISSOLVED SOLIDS (500)*	126.
CHROMIUM (.05)**	.000	MERCURY	.0012	TURBIDITY (5 s.u.)*	.7
COLOR (15 s.u.)*	5	NITRATE (45)*	<1.0	ZINC (5.0)*	.340
COPPER (1.0)*	.000				

*RECOMMENDED LIMIT **MANDATORY LIMIT
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BACTERIOLOGICAL RESULTS

	COLIFORM/100 ml	FECAL COLIFORM/100 ml
RAW WATER		
DISTRIBUTION #1	0	0
DISTRIBUTION #2	0	0

REPORT ON INDIVIDUAL WATER SUPPLIES
U.S. FOREST SERVICE STUDY

NAME OF FOREST Pike National Forest
NAME OF SUPPLY Springer Gulch
TREATMENT none
DATE OF SURVEY 8/14/73
STORAGE steel underground tank
SOURCE spring

BACTERIOLOGICAL QUALITY
NUMBER OF MONTHS IN PAST YEAR OF OPERATION THAT NO BACTERIOLOGICAL SAMPLES WERE TAKEN. 2
NUMBER OF MONTHS IN PAST YEAR OF OPERATION THAT ONE BACTERIOLOGICAL SAMPLE WAS TAKEN. 3
NUMBER OF MONTHS WHEN THE BACTERIOLOGICAL LIMITS OF THE DWS WERE NOT MET. 0

CHEMICAL QUALITY
DWS MANDATORY LIMITS FAILED
DWS RECOMMENDED LIMITS FAILED

SANITARY CONDITIONS
IS THE SOURCE PROTECTION ADEQUATE? YES ___ NO x

Overflow should have screen.

IS OPERATION AND CONTROL ADEQUATE? YES x NO ___

IS THE WATER SYSTEM CAPABLE OF DELIVERING A CONTINUOUS SUPPLY OF SAFE WATER WITHOUT MAJOR IMPROVEMENTS? YES ___ NO x

Water shortages occur each year.

PHYSICAL AND CHEMICAL RESULTS

ARSENIC (0.01)*	<.005	FLUORIDE (1.4 to 2.4) **	.60	pH	7.8
(0.05)**		IRON (0.3)*	.037	SELENIUM (0.01)**	<.005
BARIUM (1.0)**	<.05	LEAD (0.05)**	.000	SILVER (0.05)**	.000
CADMIUM (0.01)**	.000	M.B.A.S. (0.5)*	<.250	SULFATE (250)*	35.
CHLORIDE (250)*	<10.	MANGANESE (0.05)*	.000	TOTAL DISSOLVED SOLIDS (500)*	170.
CHROMIUM (.05)**	.000	MERCURY	.0010	TURBIDITY (5 s.u.)*	.8
COLOR (15 s.u.)*	13	NITRATE (45)*	<1.0	ZINC (5.0)*	.056
COPPER (1.0)*	.000				

*RECOMMENDED LIMIT **MANDATORY LIMIT
ALL VALUES ARE MILLIGRAMS PER LITER UNLESS OTHERWISE NOTED.

BACTERIOLOGICAL RESULTS

	COLIFORM/100 ml	FECAL COLIFORM/100 ml
RAW WATER		
DISTRIBUTION #1	0	0
DISTRIBUTION #2		

REPORT ON INDIVIDUAL WATER SUPPLIES
U.S. FOREST SERVICE STUDY

NAME OF FOREST Pike National Forest
NAME OF SUPPLY Wagon Tongue Campground
TREATMENT none
DATE OF SURVEY 8/15/73
STORAGE none
SOURCE handpumped well

BACTERIOLOGICAL QUALITY
NUMBER OF MONTHS IN PAST YEAR OF OPERATION THAT NO BACTERIOLOGICAL SAMPLES WERE TAKEN. 1
NUMBER OF MONTHS IN PAST YEAR OF OPERATION THAT ONE BACTERIOLOGICAL SAMPLE WAS TAKEN. 2
NUMBER OF MONTHS WHEN THE BACTERIOLOGICAL LIMITS OF THE DWS WERE NOT MET. 2

CHEMICAL QUALITY
DWS MANDATORY LIMITS FAILED
DWS RECOMMENDED LIMITS FAILED - Iron

SANITARY CONDITIONS
IS THE SOURCE PROTECTION ADEQUATE? YES ___ NO x
Seal in pump is broken.

IS OPERATION AND CONTROL ADEQUATE? YES x NO ___

IS THE WATER SYSTEM CAPABLE OF DELIVERING A CONTINUOUS SUPPLY OF SAFE WATER WITHOUT MAJOR IMPROVEMENTS? YES x NO ___

PHYSICAL AND CHEMICAL RESULTS

ARSENIC (0.01)*	<.005	FLUORIDE (1.4 to 2.4) **	1.20	pH	7.8
(0.05)**				SELENIUM (0.01)**	<.005
BARIUM (1.0)**	.06	IRON (0.3)*	1.200	SILVER (0.05)**	.000
CADMIUM (0.01)**	.000	LEAD (0.05)**	.000	SULFATE (250)*	42
CHLORIDE (250)*	15	M.B.A.S. (0.5)*	<.250	TOTAL DISSOLVED SOLIDS (500)*	260
CHROMIUM (.05)**	.000	MANGANESE (0.05)*	.023		
COLOR (15 s.u.)*	8	MERCURY	.0008	TURBIDITY (5 s.u.)*	.5
COPPER (1.0)*	.000	NITRATE (45)*	5.0	ZINC (5.0)*	.260

*RECOMMENDED LIMIT **MANDATORY LIMIT
ALL VALUES ARE MILLIGRAMS PER LITER UNLESS OTHERWISE NOTED.

BACTERIOLOGICAL RESULTS

	COLIFORM/100 ml	FECAL COLIFORM/100 ml
RAW WATER		
DISTRIBUTION #1	0	0
DISTRIBUTION #2		

REPORT ON INDIVIDUAL WATER SUPPLIES
U.S. FOREST SERVICE STUDY

NAME OF FOREST Pike National Forest
NAME OF SUPPLY Pipe Springs
TREATMENT none
DATE OF SURVEY 8/15/73
STORAGE none
SOURCE spring

BACTERIOLOGICAL QUALITY
NUMBER OF MONTHS IN PAST YEAR OF OPERATION THAT NO BACTERIOLOGICAL SAMPLES WERE TAKEN. 1
NUMBER OF MONTHS IN PAST YEAR OF OPERATION THAT ONE BACTERIOLOGICAL SAMPLE WAS TAKEN. 3
NUMBER OF MONTHS WHEN THE BACTERIOLOGICAL LIMITS OF THE DWS WERE NOT MET. 0

CHEMICAL QUALITY
DWS MANDATORY LIMITS FAILED
DWS RECOMMENDED LIMITS FAILED

SANITARY CONDITIONS
IS THE SOURCE PROTECTION ADEQUATE? YES x NO ___

IS OPERATION AND CONTROL ADEQUATE? YES x NO ___

IS THE WATER SYSTEM CAPABLE OF DELIVERING A CONTINUOUS SUPPLY OF SAFE WATER WITHOUT MAJOR IMPROVEMENTS? YES x NO ___

PHYSICAL AND CHEMICAL RESULTS

ARSENIC (0.01)*	<.005	FLUORIDE (1.4 to 2.4) **	.40	pH	7.8
(0.05)**				SELENIUM (0.01)**	<.005
BARIUM (1.0)**	.10	IRON (0.3)*	.018	SILVER (0.05)**	.000
CADMIUM (0.01)**	.000	LEAD (0.05)**	.000	SULFATE (250)*	<25.
CHLORIDE (250)*	<10.	M.B.A.S. (0.5)*	<.250	TOTAL DISSOLVED SOLIDS (500)*	250.
CHROMIUM (.05)**	.000	MANGANESE (0.05)*	.000		
COLOR (15 s.u.)*	3	MERCURY	.0006	TURBIDITY (5 s.u.)*	.1
COPPER (1.0)*	.000	NITRATE (45)*	2.0	ZINC (5.0)*	.036

*RECOMMENDED LIMIT **MANDATORY LIMIT
ALL VALUES ARE MILLIGRAMS PER LITER UNLESS OTHERWISE NOTED.

BACTERIOLOGICAL RESULTS

	COLIFORM/100 ml	FECAL COLIFORM/100 ml
RAW WATER		
DISTRIBUTION #1	0	0
DISTRIBUTION #2		

REPORT ON INDIVIDUAL WATER SUPPLIES
U.S. FOREST SERVICE STUDY

NAME OF FOREST Pike National Forest
NAME OF SUPPLY Goose Creek
TREATMENT none
DATE OF SURVEY 8/16/73
STORAGE none
SOURCE handpumped well

BACTERIOLOGICAL QUALITY
NUMBER OF MONTHS IN PAST YEAR OF OPERATION THAT NO BACTERIOLOGICAL SAMPLES WERE TAKEN. 5
NUMBER OF MONTHS IN PAST YEAR OF OPERATION THAT ONE BACTERIOLOGICAL SAMPLE WAS TAKEN. 0
NUMBER OF MONTHS WHEN THE BACTERIOLOGICAL LIMITS OF THE DWS WERE NOT MET. 0

CHEMICAL QUALITY
DWS MANDATORY LIMITS FAILED - Fluoride
DWS RECOMMENDED LIMITS FAILED

SANITARY CONDITIONS
IS THE SOURCE PROTECTION ADEQUATE? YES ___ NO x
Well has no sanitary seal. Well is subject to flooding by surface water.

IS OPERATION AND CONTROL ADEQUATE? YES ___ NO x
Bolts attached to pump casing need tightening.

IS THE WATER SYSTEM CAPABLE OF DELIVERING A CONTINUOUS SUPPLY OF SAFE WATER WITHOUT MAJOR IMPROVEMENTS? YES ___ NO x
Source protection needs improvement.

PHYSICAL AND CHEMICAL RESULTS

ARSENIC (0.01)*	<.005	FLUORIDE (1.4 to 2.4) **	2.50	pH	7.8
(0.05)**		IRON (0.3)*	.290	SELENIUM (0.01)**	<.005
BARIUM (1.0)**	.17	LEAD (0.05)**	.000	SILVER (0.05)**	.000
CADMIUM (0.01)**	.000	M.B.A.S. (0.5)*	<.250	SULFATE (250)*	<25.
CHLORIDE (250)*	<10.	MANGANESE (0.05)*	.026	TOTAL DISSOLVED SOLIDS (500)*	201.
CHROMIUM (.05)**	.000	MERCURY	<.0005	TURBIDITY (5 s.u.)*	.2
COLOR (15 s.u.)*	3	NITRATE (45)*	7.0	ZINC (5.0)*	.430
COPPER (1.0)*	.017				

*RECOMMENDED LIMIT **MANDATORY LIMIT
ALL VALUES ARE MILLIGRAMS PER LITER UNLESS OTHERWISE NOTED.

BACTERIOLOGICAL RESULTS

	COLIFORM/100 ml	FECAL COLIFORM/100 ml
RAW WATER		
DISTRIBUTION #1	0	0
DISTRIBUTION #2		

REPORT ON INDIVIDUAL WATER SUPPLIES
U.S. FOREST SERVICE STUDY

NAME OF FOREST Pike National Forest
NAME OF SUPPLY Reservoir Campground
TREATMENT none
DATE OF SURVEY 8/15/73
STORAGE steel underground tank
SOURCE spring

BACTERIOLOGICAL QUALITY
NUMBER OF MONTHS IN PAST YEAR OF OPERATION THAT NO BACTERIOLOGICAL SAMPLES WERE TAKEN. 2
NUMBER OF MONTHS IN PAST YEAR OF OPERATION THAT ONE BACTERIOLOGICAL SAMPLE WAS TAKEN. 3
NUMBER OF MONTHS WHEN THE BACTERIOLOGICAL LIMITS OF THE DWS WERE NOT MET. 0

CHEMICAL QUALITY
DWS MANDATORY LIMITS FAILED
DWS RECOMMENDED LIMITS FAILED

SANITARY CONDITIONS
IS THE SOURCE PROTECTION ADEQUATE? YES ___ NO x
Surface drainage is not controlled above the spring.

IS OPERATION AND CONTROL ADEQUATE? YES x NO ___

IS THE WATER SYSTEM CAPABLE OF DELIVERING A CONTINUOUS SUPPLY OF SAFE WATER WITHOUT MAJOR IMPROVEMENTS? YES ___ NO x
Pressure is not adequate in the distribution system.
Source is not adequate to meet demands.

PHYSICAL AND CHEMICAL RESULTS

ARSENIC (0.01)*	<.005	FLUORIDE (1.4 to 2.4) **	1.20	pH	8.1
(0.05)**		IRON (0.3)*	.260	SELENIUM (0.01)**	<.005
BARIUM (1.0)**	<05	LEAD (0.05)**	.000	SILVER (0.05)**	.000
CADMIUM (0.01)**	.000	M.B.A.S. (0.5)*	<.250	SULFATE (250)*	<25.
CHLORIDE (250)*	<10.	MANGANESE (0.05)*	.043	TOTAL DISSOLVED SOLIDS (500)*	200.
CHROMIUM (.05)**	.000	MERCURY	.0005	TURBIDITY (5 s.u.)*	.9
COLOR (15 s.u.)*	5	NITRATE (45)*	<1.0	ZINC (5.0)*	.081
COPPER (1.0)*	.000				

*RECOMMENDED LIMIT **MANDATORY LIMIT
ALL VALUES ARE MILLIGRAMS PER LITER UNLESS OTHERWISE NOTED.

BACTERIOLOGICAL RESULTS

	COLIFORM/100 ml	FECAL COLIFORM/100 ml
RAW WATER		
DISTRIBUTION #1	0	0
DISTRIBUTION #2	0	0

REPORT ON INDIVIDUAL WATER SUPPLIES
U.S. FOREST SERVICE STUDY

NAME OF FOREST Pike National Forest
NAME OF SUPPLY The Crags
TREATMENT none
DATE OF SURVEY 8/15/73
STORAGE steel underground tank
SOURCE stream

BACTERIOLOGICAL QUALITY
NUMBER OF MONTHS IN PAST YEAR OF OPERATION THAT NO BACTERIOLOGICAL SAMPLES WERE TAKEN. 3
NUMBER OF MONTHS IN PAST YEAR OF OPERATION THAT ONE BACTERIOLOGICAL SAMPLE WAS TAKEN. 1
NUMBER OF MONTHS WHEN THE BACTERIOLOGICAL LIMITS OF THE DWS WERE NOT MET. 0

CHEMICAL QUALITY
DWS MANDATORY LIMITS FAILED
DWS RECOMMENDED LIMITS FAILED

SANITARY CONDITIONS
IS THE SOURCE PROTECTION ADEQUATE? YES ___ NO x
Stream is next to trail. Collection box is subject to flooding.

IS OPERATION AND CONTROL ADEQUATE? YES x NO ___

IS THE WATER SYSTEM CAPABLE OF DELIVERING A CONTINUOUS SUPPLY OF SAFE WATER WITHOUT MAJOR IMPROVEMENTS? YES ___ NO x

Source protection needs improvement. Disinfection unit should be installed with surface sources.

PHYSICAL AND CHEMICAL RESULTS

ARSENIC (0.01)*	<.005	FLUORIDE (1.4 to 2.4) **	1.40	pH	6.7
(0.05)**				SELENIUM (0.01)**	<.005
BARIUM (1.0)**	<.05	IRON (0.3)*	.024	SILVER (0.05)**	.000
CADMIUM (0.01)**	.000	LEAD (0.05)**	.000	SULFATE (250)*	<25.
CHLORIDE (250)*	<10.	M.B.A.S. (0.5)*	<.250	TOTAL DISSOLVED SOLIDS (500)*	27.
CHROMIUM (.05)**	.000	MANGANESE (0.05)*	.000		
COLOR (15 s.u.)*	8	MERCURY	<.0005	TURBIDITY (5 s.u.)*	.1
COPPER (1.0)*	.000	NITRATE (45)*	<1.0	ZINC (5.0)*	.022

*RECOMMENDED LIMIT **MANDATORY LIMIT
ALL VALUES ARE MILLIGRAMS PER LITER UNLESS OTHERWISE NOTED.

BACTERIOLOGICAL RESULTS

	COLIFORM/100 ml	FECAL COLIFORM/100 ml
RAW WATER		
DISTRIBUTION #1	0	0
DISTRIBUTION #2	0	0

REPORT ON INDIVIDUAL WATER SUPPLIES
U.S. FOREST SERVICE STUDY

NAME OF FOREST Pike National Forest
NAME OF SUPPLY Lone Rock
TREATMENT none
DATE OF SURVEY 8/16/73
STORAGE steel underground tank
SOURCE spring

BACTERIOLOGICAL QUALITY
NUMBER OF MONTHS IN PAST YEAR OF OPERATION THAT NO BACTERIOLOGICAL SAMPLES WERE TAKEN. 1
NUMBER OF MONTHS IN PAST YEAR OF OPERATION THAT ONE BACTERIOLOGICAL SAMPLE WAS TAKEN. 4
NUMBER OF MONTHS WHEN THE BACTERIOLOGICAL LIMITS OF THE DWS WERE NOT MET. 1

CHEMICAL QUALITY
DWS MANDATORY LIMITS FAILED - Fluoride
DWS RECOMMENDED LIMITS FAILED - Chloride, Total Dissolved Solids, MBAS

SANITARY CONDITIONS
IS THE SOURCE PROTECTION ADEQUATE? YES ___ NO x
Unsanitary cover on spring box.

IS OPERATION AND CONTROL ADEQUATE? YES x NO ___

IS THE WATER SYSTEM CAPABLE OF DELIVERING A CONTINUOUS SUPPLY OF SAFE WATER WITHOUT MAJOR IMPROVEMENTS? YES ___ NO x

Source protection needs improvement. Pressure is not adequate in the distribution system.

PHYSICAL AND CHEMICAL RESULTS

ARSENIC (0.01)*	<.005	FLUORIDE (1.4 to 2.4) **	4.00	pH	7.5
(0.05)**				SELENIUM (0.01)**	<.005
BARIUM (1.0)**	.31	IRON (0.3)*	.130	SILVER (0.05)**	.000
CADMIUM (0.01)**	.000	LEAD (0.05)**	.000	SULFATE (250)*	.120
CHLORIDE (250)*	500.	M.B.A.S. (0.5)*	1.100	TOTAL DISSOLVED SOLIDS (500)*	1,340.
CHROMIUM (.05)**	.000	MANGANESE (0.05)*	.030		
COLOR (15 s.u.)*	3	MERCURY	.0010	TURBIDITY (5 s.u.)*	.1
COPPER (1.0)*	.048	NITRATE (45)*	<.1	ZINC (5.0)*	.059

*RECOMMENDED LIMIT **MANDATORY LIMIT
ALL VALUES ARE MILLIGRAMS PER LITER UNLESS OTHERWISE NOTED.

BACTERIOLOGICAL RESULTS

	COLIFORM/100 ml	FECAL COLIFORM/100 ml
RAW WATER		
DISTRIBUTION #1	0	0
DISTRIBUTION #2	0	0

REPORT ON INDIVIDUAL WATER SUPPLIES
U.S. FOREST SERVICE STUDY

NAME OF FOREST Pike National Forest
NAME OF SUPPLY Wye
TREATMENT none

DATE OF SURVEY 8/15/73
STORAGE steel underground tank
SOURCE Spring

BACTERIOLOGICAL QUALITY

NUMBER OF MONTHS IN PAST YEAR OF OPERATION THAT NO BACTERIOLOGICAL SAMPLES WERE TAKEN. 3

NUMBER OF MONTHS IN PAST YEAR OF OPERATION THAT ONE BACTERIOLOGICAL SAMPLE WAS TAKEN. 2

NUMBER OF MONTHS WHEN THE BACTERIOLOGICAL LIMITS OF THE DWS WERE NOT MET. 1

CHEMICAL QUALITY

DWS MANDATORY LIMITS FAILED - Fluoride
DWS RECOMMENDED LIMITS FAILED

SANITARY CONDITIONS

IS THE SOURCE PROTECTION ADEQUATE? YES x NO ___

IS OPERATION AND CONTROL ADEQUATE? YES x NO ___

IS THE WATER SYSTEM CAPABLE OF DELIVERING A CONTINUOUS SUPPLY OF SAFE WATER WITHOUT MAJOR IMPROVEMENTS? YES ___ NO x

Pressure is not adequate in the distribution system.

PHYSICAL AND CHEMICAL RESULTS

ARSENIC (0.01)*	<.005	FLUORIDE (1.4 to 2.4) **	4.00	pH	6.7
(0.05)**		IRON (0.3)*	.170	SELENIUM (0.01)**	<.005
BARIUM (1.0)**	<.05	LEAD (0.05)**	.000	SILVER (0.05)**	.000
CADMIUM (0.01)**	.000	M.B.A.S. (0.5)*	<.250	SULFATE (250)*	<25.
CHLORIDE (250)*	<10.	MANGANESE (0.05)*	.007	TOTAL DISSOLVED SOLIDS (500)*	31.
CHROMIUM (.05)**	.000	MERCURY	<.0005	TURBIDITY (5 s.u.)*	.3
COLOR (15 s.u.)*	3	NITRATE (45)*	<1.0	ZINC (5.0)*	.048
COPPER (1.0)*	.041				

*RECOMMENDED LIMIT **MANDATORY LIMIT
ALL VALUES ARE MILLIGRAMS PER LITER UNLESS OTHERWISE NOTED.

BACTERIOLOGICAL RESULTS

	COLIFORM/100 ml	FECAL COLIFORM/100 ml
RAW WATER		
DISTRIBUTION #1	0	0
DISTRIBUTION #2	0	0

REPORT ON INDIVIDUAL WATER SUPPLIES
U.S. FOREST SERVICE STUDY

NAME OF FOREST Pike National Forest
NAME OF SUPPLY Clyde
TREATMENT none

DATE OF SURVEY 8/15/73
STORAGE none
SOURCE Handpumped well

BACTERIOLOGICAL QUALITY

NUMBER OF MONTHS IN PAST YEAR OF OPERATION THAT NO BACTERIOLOGICAL SAMPLES WERE TAKEN. 3

NUMBER OF MONTHS IN PAST YEAR OF OPERATION THAT ONE BACTERIOLOGICAL SAMPLE WAS TAKEN. 2

NUMBER OF MONTHS WHEN THE BACTERIOLOGICAL LIMITS OF THE DWS WERE NOT MET. 0

CHEMICAL QUALITY

DWS MANDATORY LIMITS FAILED - Fluoride
DWS RECOMMENDED LIMITS FAILED

SANITARY CONDITIONS

IS THE SOURCE PROTECTION ADEQUATE? YES ___ NO x

Well does not have a sanitary seal.

IS OPERATION AND CONTROL ADEQUATE? YES ___ NO x

Bolts connecting the pump to the casing need tightening.

IS THE WATER SYSTEM CAPABLE OF DELIVERING A CONTINUOUS SUPPLY OF SAFE WATER WITHOUT MAJOR IMPROVEMENTS? YES ___ NO x

Source protection needs improvement.

PHYSICAL AND CHEMICAL RESULTS

ARSENIC (0.01)*	<.005	FLUORIDE (1.4 to 2.4) **	3.00	pH	6.8
(0.05)**		IRON (0.3)*	.020	SELENIUM (0.01)**	<.005
BARIUM (1.0)**	<.05	LEAD (0.05)**	.000	SILVER (0.05)**	.000
CADMIUM (0.01)**	.000	M.B.A.S. (0.5)*	<.250	SULFATE (250)*	<25.
CHLORIDE (250)*	<10.	MANGANESE (0.05)*	.000	TOTAL DISSOLVED SOLIDS (500)*	68.
CHROMIUM (.05)**	.000	MERCURY	.0015	TURBIDITY (5 s.u.)*	.6
COLOR (15 s.u.)*	3	NITRATE (45)*	1.0	ZINC (5.0)*	.100
COPPER (1.0)*	.000				

*RECOMMENDED LIMIT **MANDATORY LIMIT
ALL VALUES ARE MILLIGRAMS PER LITER UNLESS OTHERWISE NOTED.

BACTERIOLOGICAL RESULTS

	COLIFORM/100 ml	FECAL COLIFORM/100 ml
RAW WATER		
DISTRIBUTION #1	0	0
DISTRIBUTION #2		

REPORT ON INDIVIDUAL WATER SUPPLIES
U.S. FOREST SERVICE STUDY

NAME OF FOREST Nantahala National Forest
NAME OF SUPPLY Cheoah Point
TREATMENT none
DATE OF SURVEY 9/13/73
STORAGE Pressure tank
SOURCE Well

BACTERIOLOGICAL QUALITY
NUMBER OF MONTHS IN PAST YEAR OF OPERATION THAT NO BACTERIOLOGICAL SAMPLES WERE TAKEN. 0
NUMBER OF MONTHS IN PAST YEAR OF OPERATION THAT ONE BACTERIOLOGICAL SAMPLE WAS TAKEN. 5
NUMBER OF MONTHS WHEN THE BACTERIOLOGICAL LIMITS OF THE DWS WERE NOT MET. 0

CHEMICAL QUALITY
DWS MANDATORY LIMITS FAILED
DWS RECOMMENDED LIMITS FAILED

SANITARY CONDITIONS
IS THE SOURCE PROTECTION ADEQUATE? YES ___ NO x
Well is not properly vented and does not have a sanitary seal .

IS OPERATION AND CONTROL ADEQUATE? YES x NO ___

IS THE WATER SYSTEM CAPABLE OF DELIVERING A CONTINUOUS SUPPLY OF SAFE WATER WITHOUT MAJOR IMPROVEMENTS? YES x NO ___

PHYSICAL AND CHEMICAL RESULTS

ARSENIC (0.01)* (0.05)**	<.005	FLUORIDE (1.4 to 2.4) **	<.10	pH	6.7
BARIUM (1.0)**	<.05	IRON (0.3)*	.040	SELENIUM (0.01)**	<.005
CADMIUM (0.01)**	.000	LEAD (0.05)**	.000	SILVER (0.05)**	.000
CHLORIDE (250)*	<10.	M.B.A.S. (0.5)*	<.250	SULFATE (250)*	<25.
CHROMIUM (.05)**	.000	MANGANESE (0.05)*	.003	TOTAL DISSOLVED SOLIDS (500)*	28.
COLOR (15 s.u.)*	3.	MERCURY	.0006	TURBIDITY (5 s.u.)*	.2
COPPER (1.0)*	.095	NITRATE (45)*	<.1	ZINC (5.0)*	.340

*RECOMMENDED LIMIT **MANDATORY LIMIT
ALL VALUES ARE MILLIGRAMS PER LITER UNLESS OTHERWISE NOTED.

BACTERIOLOGICAL RESULTS

	COLIFORM/100 ml	FECAL COLIFORM/100 ml
RAW WATER		
DISTRIBUTION #1	0	0
DISTRIBUTION #2	1	1

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REPORT ON INDIVIDUAL WATER SUPPLIES
U.S. FOREST SERVICE STUDY

NAME OF FOREST Pike National Forest
NAME OF SUPPLY Flat Rock Campground
TREATMENT none
DATE OF SURVEY 8/9/73
STORAGE steel underground tank
SOURCE well

BACTERIOLOGICAL QUALITY
NUMBER OF MONTHS IN PAST YEAR OF OPERATION THAT NO BACTERIOLOGICAL SAMPLES WERE TAKEN. 2
NUMBER OF MONTHS IN PAST YEAR OF OPERATION THAT ONE BACTERIOLOGICAL SAMPLE WAS TAKEN. 3
NUMBER OF MONTHS WHEN THE BACTERIOLOGICAL LIMITS OF THE DWS WERE NOT MET. 0

CHEMICAL QUALITY
DWS MANDATORY LIMITS FAILED
DWS RECOMMENDED LIMITS FAILED - Iron

SANITARY CONDITIONS
IS THE SOURCE PROTECTION ADEQUATE? YES ___ NO x
There is no sanitary seal on the well.

IS OPERATION AND CONTROL ADEQUATE? YES x NO ___

IS THE WATER SYSTEM CAPABLE OF DELIVERING A CONTINUOUS SUPPLY OF SAFE WATER WITHOUT MAJOR IMPROVEMENTS? YES ___ NO x
The storage tank vent should be pointed down and screened.

PHYSICAL AND CHEMICAL RESULTS

ARSENIC (0.01)* (0.05)**	<.005	FLUORIDE (1.4 to 2.4) **	.90	pH	7.4
BARIUM (1.0)**	<.05	IRON (0.3)*	.630	SELENIUM (0.01)**	<.005
CADMIUM (0.01)**	.000	LEAD (0.05)**	.000	SILVER (0.05)**	.000
CHLORIDE (250)*	<10.	M.B.A.S. (0.5)*	<250	SULFATE (250)*	<25.
CHROMIUM (.05)**	<.000	MANGANESE (0.05)*	.007	TOTAL DISSOLVED SOLIDS (500)*	78.
COLOR (15 s.u.)*	8	MERCURY	.0012	TURBIDITY (5 s.u.)*	4.5
COPPER (1.0)*	.006	NITRATE (45)*	<1.0	ZINC (5.0)*	.230

*RECOMMENDED LIMIT **MANDATORY LIMIT
ALL VALUES ARE MILLIGRAMS PER LITER UNLESS OTHERWISE NOTED.

BACTERIOLOGICAL RESULTS

	COLIFORM/100 ml	FECAL COLIFORM/100 ml
RAW WATER		
DISTRIBUTION #1	0	0
DISTRIBUTION #2	0	0

REPORT ON INDIVIDUAL WATER SUPPLIES
U.S. FOREST SERVICE STUDY

NAME OF FOREST Nantahala National Forest
NAME OF SUPPLY Arrowood CCC/Arrowood Glade
TREATMENT none
DATE OF SURVEY 9/12/73
STORAGE Underground concrete tanks
SOURCE Well

BACTERIOLOGICAL QUALITY

NUMBER OF MONTHS IN PAST YEAR OF OPERATION THAT NO BACTERIOLOGICAL SAMPLES WERE TAKEN. 1

NUMBER OF MONTHS IN PAST YEAR OF OPERATION THAT ONE BACTERIOLOGICAL SAMPLE WAS TAKEN. 1

NUMBER OF MONTHS WHEN THE BACTERIOLOGICAL LIMITS OF THE DWS WERE NOT MET. 0

CHEMICAL QUALITY

DWS MANDATORY LIMITS FAILED
DWS RECOMMENDED LIMITS FAILED

SANITARY CONDITIONS

IS THE SOURCE PROTECTION ADEQUATE? YES X NO ___

IS OPERATION AND CONTROL ADEQUATE? YES X NO ___

IS THE WATER SYSTEM CAPABLE OF DELIVERING A CONTINUOUS SUPPLY OF SAFE WATER WITHOUT MAJOR IMPROVEMENTS? YES ___ NO X

The pressure is not adequate at all parts of the distribution system.

PHYSICAL AND CHEMICAL RESULTS

ARSENIC (0.01)*	<.005	FLUORIDE (1.4 to 2.4) **	<.10	pH	7.4
(0.05)**				SELENIUM (0.01)**	<.005
BARIUM (1.0)**	<.05	IRON (0.3)*	.066	SILVER (0.05)**	.000
CADMIUM (0.01)**	.000	LEAD (0.05)**	.000	SULFATE (250)*	<25.
CHLORIDE (250)*	<10.	M.B.A.S. (0.5)*	<.250	TOTAL DISSOLVED SOLIDS (500)*	51.
CHROMIUM (.05)**	.000	MANGANESE (0.05)*	.003	TURBIDITY (5 s.u.)*	.2
COLOR (15 s.u.)*	3	MERCURY	.0010	ZINC (5.0)*	.046
COPPER (1.0)*	.031	NITRATE (45)*	<1.0		

*RECOMMENDED LIMIT **MANDATORY LIMIT
ALL VALUES ARE MILLIGRAMS PER LITER UNLESS OTHERWISE NOTED.

BACTERIOLOGICAL RESULTS

	COLIFORM/100 ml	FECAL COLIFORM/100 ml
RAW WATER		
DISTRIBUTION #1	0	0
DISTRIBUTION #2	0	0

REPORT ON INDIVIDUAL WATER SUPPLIES
U.S. FOREST SERVICE STUDY

NAME OF FOREST Nantahala National Forest
NAME OF SUPPLY Wayah Ranger Station
TREATMENT none
DATE OF SURVEY 9/12/73
STORAGE Concrete and pressure tanks
SOURCE Well

BACTERIOLOGICAL QUALITY

NUMBER OF MONTHS IN PAST YEAR OF OPERATION THAT NO BACTERIOLOGICAL SAMPLES WERE TAKEN. 2

NUMBER OF MONTHS IN PAST YEAR OF OPERATION THAT ONE BACTERIOLOGICAL SAMPLE WAS TAKEN. 2

NUMBER OF MONTHS WHEN THE BACTERIOLOGICAL LIMITS OF THE DWS WERE NOT MET. 0

CHEMICAL QUALITY

DWS MANDATORY LIMITS FAILED
DWS RECOMMENDED LIMITS FAILED

SANITARY CONDITIONS

IS THE SOURCE PROTECTION ADEQUATE? YES X NO ___

IS OPERATION AND CONTROL ADEQUATE? YES X NO ___

IS THE WATER SYSTEM CAPABLE OF DELIVERING A CONTINUOUS SUPPLY OF SAFE WATER WITHOUT MAJOR IMPROVEMENTS? YES ___ NO X

Vent on concrete tank should be screened.

PHYSICAL AND CHEMICAL RESULTS

ARSENIC (0.01)*	<.005	FLUORIDE (1.4 to 2.4) **	<.10	pH	7.2
(0.05)**				SELENIUM (0.01)**	<.005
BARIUM (1.0)**	<.05	IRON (0.3)*	.035	SILVER (0.05)**	.000
CADMIUM (0.01)**	.000	LEAD (0.05)**	.000	SULFATE (250)*	<25.
CHLORIDE (250)*	<10	M.B.A.S. (0.5)*	<.025	TOTAL DISSOLVED SOLIDS (500)*	78.
CHROMIUM (.05)**	.000	MANGANESE (0.05)*	.000	TURBIDITY (5 s.u.)*	.2
COLOR (15 s.u.)*	2	MERCURY	<.0005	ZINC (5.0)*	1.300
COPPER (1.0)*	.025	NITRATE (45)*	<1.0		

*RECOMMENDED LIMIT **MANDATORY LIMIT
ALL VALUES ARE MILLIGRAMS PER LITER UNLESS OTHERWISE NOTED.

BACTERIOLOGICAL RESULTS

	COLIFORM/100 ml	FECAL COLIFORM/100 ml
RAW WATER		
DISTRIBUTION #1	1	0
DISTRIBUTION #2	0	0

REPORT ON INDIVIDUAL WATER SUPPLIES
U.S. FOREST SERVICE STUDY

NAME OF FOREST Nantahala National Forest
NAME OF SUPPLY Appletree
TREATMENT Chlorination
DATE OF SURVEY 9/12/73
STORAGE Underground concrete tank
SOURCE Well

BACTERIOLOGICAL QUALITY
NUMBER OF MONTHS IN PAST YEAR OF OPERATION THAT NO BACTERIOLOGICAL SAMPLES WERE TAKEN. 1
NUMBER OF MONTHS IN PAST YEAR OF OPERATION THAT ONE BACTERIOLOGICAL SAMPLE WAS TAKEN. 1
NUMBER OF MONTHS WHEN THE BACTERIOLOGICAL LIMITS OF THE DWS WERE NOT MET. 0

CHEMICAL QUALITY
DWS MANDATORY LIMITS FAILED
DWS RECOMMENDED LIMITS FAILED

SANITARY CONDITIONS
IS THE SOURCE PROTECTION ADEQUATE? YES x NO ___

IS OPERATION AND CONTROL ADEQUATE? YES ___ NO x

Chlorine residual should be checked and recorded daily. No chlorine residual in distribution system at time of survey.

IS THE WATER SYSTEM CAPABLE OF DELIVERING A CONTINUOUS SUPPLY OF SAFE WATER WITHOUT MAJOR IMPROVEMENTS? YES x NO ___

PHYSICAL AND CHEMICAL RESULTS

ARSENIC (0.01)*	<.005	FLUORIDE (1.4 to 2.4) **	<.10	pH	6.4
(0.05)**				SELENIUM (0.01)**	<.005
BARIUM (1.0)**	<.05	IRON (0.3)*	.025	SILVER (0.05)**	.000
CADMIUM (0.01)**	.000	LEAD (0.05)**	.000	SULFATE (250)*	<25.
CHLORIDE (250)*	<10.	M.B.A.S. (0.5)*	<.250	TOTAL DISSOLVED	
CHROMIUM (.05)**	.000	MANGANESE (0.05)*	.000	SOLIDS (500)*	19.
COLOR (15 s.u.)*	3	MERCURY	<.0005	TURBIDITY (5 s.u.)*	.1
COPPER (1.0)*	.050	NITRATE (45)*	<1.0	ZINC (5.0)*	.600

*RECOMMENDED LIMIT **MANDATORY LIMIT
ALL VALUES ARE MILLIGRAMS PER LITER UNLESS OTHERWISE NOTED.

BACTERIOLOGICAL RESULTS

	COLIFORM/100 ml	FECAL COLIFORM/100 ml
RAW WATER		
DISTRIBUTION #1	0	0
DISTRIBUTION #2	0	0

REPORT ON INDIVIDUAL WATER SUPPLIES
U.S. FOREST SERVICE STUDY

NAME OF FOREST Nantahala National Forest
NAME OF SUPPLY Joyce Kilmer
TREATMENT none
DATE OF SURVEY 9/13/73
STORAGE Underground concrete tank
SOURCE Spring

BACTERIOLOGICAL QUALITY
NUMBER OF MONTHS IN PAST YEAR OF OPERATION THAT NO BACTERIOLOGICAL SAMPLES WERE TAKEN. 0
NUMBER OF MONTHS IN PAST YEAR OF OPERATION THAT ONE BACTERIOLOGICAL SAMPLE WAS TAKEN. 4
NUMBER OF MONTHS WHEN THE BACTERIOLOGICAL LIMITS OF THE DWS WERE NOT MET. 2

CHEMICAL QUALITY
DWS MANDATORY LIMITS FAILED Bacteriological Standard
DWS RECOMMENDED LIMITS FAILED

SANITARY CONDITIONS
IS THE SOURCE PROTECTION ADEQUATE? YES ___ NO x

Spring should have a fence around it.

IS OPERATION AND CONTROL ADEQUATE? YES x NO ___

IS THE WATER SYSTEM CAPABLE OF DELIVERING A CONTINUOUS SUPPLY OF SAFE WATER WITHOUT MAJOR IMPROVEMENTS? YES ___ NO x

Pressure is not adequate in the distribution system. Screen on storage tank overflow needs repair.

PHYSICAL AND CHEMICAL RESULTS

ARSENIC (0.01)*	<.005	FLUORIDE (1.4 to 2.4) **	<.10	pH	6.3
(0.05)**				SELENIUM (0.01)**	<.005
BARIUM (1.0)**	<.05	IRON (0.3)*	.040	SILVER (0.05)**	.000
CADMIUM (0.01)**	.000	LEAD (0.05)**	.000	SULFATE (250)*	<25.
CHLORIDE (250)*	<10.	M.B.A.S. (0.5)*	<.250	TOTAL DISSOLVED	
CHROMIUM (.05)**	.000	MANGANESE (0.05)*	.006	SOLIDS (500)*	20.
COLOR (15 s.u.)*	3	MERCURY	.0006	TURBIDITY (5 s.u.)*	.1
COPPER (1.0)*	.063	NITRATE (45)*	<1.0	ZINC (5.0)*	.310

*RECOMMENDED LIMIT **MANDATORY LIMIT
ALL VALUES ARE MILLIGRAMS PER LITER UNLESS OTHERWISE NOTED.

BACTERIOLOGICAL RESULTS

	COLIFORM/100 ml	FECAL COLIFORM/100 ml
RAW WATER		
DISTRIBUTION #1	4	0
DISTRIBUTION #2	3	0

REPORT ON INDIVIDUAL WATER SUPPLIES
U.S. FOREST SERVICE STUDY

NAME OF FOREST Nantahala National Forest
NAME OF SUPPLY Standing Indian Camp
TREATMENT Chlorinator
DATE OF SURVEY 9/12/73
STORAGE Concrete tank
SOURCE Stream

BACTERIOLOGICAL QUALITY
NUMBER OF MONTHS IN PAST YEAR OF OPERATION THAT NO BACTERIOLOGICAL SAMPLES WERE TAKEN. 1
NUMBER OF MONTHS IN PAST YEAR OF OPERATION THAT ONE BACTERIOLOGICAL SAMPLE WAS TAKEN. 0
NUMBER OF MONTHS WHEN THE BACTERIOLOGICAL LIMITS OF THE DWS WERE NOT MET. 1

CHEMICAL QUALITY
DWS MANDATORY LIMITS FAILED
DWS RECOMMENDED LIMITS FAILED

SANITARY CONDITIONS
IS THE SOURCE PROTECTION ADEQUATE? YES x NO ___

IS OPERATION AND CONTROL ADEQUATE? YES ___ NO x
Chlorine residuals should be checked and recorded daily. No chlorine residuals in distribution system at time of survey.

IS THE WATER SYSTEM CAPABLE OF DELIVERING A CONTINUOUS SUPPLY OF SAFE WATER WITHOUT MAJOR IMPROVEMENTS? YES ___ NO x
Overflow on reservior should be screened.

PHYSICAL AND CHEMICAL RESULTS

ARSENIC (0.01)* (0.05)**	<.005	FLUORIDE (1.4 to 2.4) **	<.10	pH	7.2
BARIUM (1.0)**	<.05	IRON (0.3)*	.019	SELENIUM (0.01)**	<.005
CADMIUM (0.01)**	.000	LEAD (0.05)**	.000	SILVER (0.05)**	.000
CHLORIDE (250)*	<10.	M.B.A.S. (0.5)*	<.250	SULFATE (250)*	<25.
CHROMIUM (.05)**	.000	MANGANESE (0.05)*	.000	TOTAL DISSOLVED SOLIDS (500)*	37.
COLOR (15 s.u.)*	3	MERCURY	<.0005	TURBIDITY (5 s.u.)*	.2
COPPER (1.0)*	.031	NITRATE (45)*	<1.0	ZINC (5.0)*	1.400

*RECOMMENDED LIMIT **MANDATORY LIMIT
ALL VALUES ARE MILLIGRAMS PER LITER UNLESS OTHERWISE NOTED.

BACTERIOLOGICAL RESULTS

	COLIFORM/100 ml	FECAL COLIFORM/100 ml
RAW WATER		
DISTRIBUTION #1	0	0
DISTRIBUTION #2	0	0

REPORT ON INDIVIDUAL WATER SUPPLIES
U.S. FOREST SERVICE STUDY

NAME OF FOREST Nantahala National Forest
NAME OF SUPPLY Tsali Campground
TREATMENT Chlorine, pressure filter
DATE OF SURVEY 9/13/73
STORAGE underground concrete tank
SOURCE steam

BACTERIOLOGICAL QUALITY
NUMBER OF MONTHS IN PAST YEAR OF OPERATION THAT NO BACTERIOLOGICAL SAMPLES WERE TAKEN. 2
NUMBER OF MONTHS IN PAST YEAR OF OPERATION THAT ONE BACTERIOLOGICAL SAMPLE WAS TAKEN. 3
NUMBER OF MONTHS WHEN THE BACTERIOLOGICAL LIMITS OF THE DWS WERE NOT MET. 1

CHEMICAL QUALITY
DWS MANDATORY LIMITS FAILED
DWS RECOMMENDED LIMITS FAILED

SANITARY CONDITIONS
IS THE SOURCE PROTECTION ADEQUATE? YES x NO ___
Protection is good.

IS OPERATION AND CONTROL ADEQUATE? YES ___ NO x
There was no chlorine residual in the distribution system on the day of the survey.

IS THE WATER SYSTEM CAPABLE OF DELIVERING A CONTINUOUS SUPPLY OF SAFE WATER WITHOUT MAJOR IMPROVEMENTS? YES x NO ___

PHYSICAL AND CHEMICAL RESULTS

ARSENIC (0.01)* (0.05)**	<.005	FLUORIDE (1.4 to 2.4) **	<.10	pH	7.0
BARIUM (1.0)**	<.05	IRON (0.3)*	.030	SELENIUM (0.01)**	<.005
CADMIUM (0.01)**	.000	LEAD (0.05)**	.000	SILVER (0.05)*	.000
CHLORIDE (250)*	<10.	M.B.A.S. (0.5)*	<.250	SULFATE (250)*	<25.
CHROMIUM (.05)**	.000	MANGANESE (0.05)*	.003	TOTAL DISSOLVED SOLIDS (500)*	35.
COLOR (15 s.u.)*	3	MERCURY	<.0005	TURBIDITY (5 s.u.)*	.2
COPPER (1.0)*	.038	NITRATE (45)*	<1.0	ZINC (5.0)*	.460

*RECOMMENDED LIMIT **MANDATORY LIMIT
ALL VALUES ARE MILLIGRAMS PER LITER UNLESS OTHERWISE NOTED.

BACTERIOLOGICAL RESULTS

	COLIFORM/100 ml	FECAL COLIFORM/100 ml
RAW WATER		
DISTRIBUTION #1	0	0
DISTRIBUTION #2	0	0

REPORT ON INDIVIDUAL WATER SUPPLIES
U.S. FOREST SERVICE STUDY

NAME OF FOREST Nantahala National Forest
NAME OF SUPPLY Cliffside Lake
TREATMENT none
DATE OF SURVEY 9/11/73
STORAGE Pressure tank
SOURCE Well

BACTERIOLOGICAL QUALITY
NUMBER OF MONTHS IN PAST YEAR OF OPERATION THAT NO BACTERIOLOGICAL SAMPLES WERE TAKEN. 2
NUMBER OF MONTHS IN PAST YEAR OF OPERATION THAT ONE BACTERIOLOGICAL SAMPLE WAS TAKEN. 2
NUMBER OF MONTHS WHEN THE BACTERIOLOGICAL LIMITS OF THE DWS WERE NOT MET. 0

CHEMICAL QUALITY
DWS MANDATORY LIMITS FAILED
DWS RECOMMENDED LIMITS FAILED Iron, Zinc

SANITARY CONDITIONS
IS THE SOURCE PROTECTION ADEQUATE? YES ___ NO X
Vent on well should have screen and electrical wires should be sealed in the well seal.
IS OPERATION AND CONTROL ADEQUATE? YES X NO ___

IS THE WATER SYSTEM CAPABLE OF DELIVERING A CONTINUOUS SUPPLY OF SAFE WATER WITHOUT MAJOR IMPROVEMENTS? YES X NO ___

PHYSICAL AND CHEMICAL RESULTS

ARSENIC (0.01)* (0.05)**	<.005	FLUORIDE (1.4 to 2.4) **	<.10	pH	7.0
BARIUM (1.0)**	<.05	IRON (0.3)*	2.400	SELENIUM (0.01)**	<.005
CADMIUM (0.01)**	.000	LEAD (0.05)**	.000	SILVER (0.05)**	.000
CHLORIDE (250)*	<10.	M.B.A.S. (0.5)*	<.250	SULFATE (250)*	<25
CHROMIUM (.05)**	.000	MANGANESE (0.05)*	.044	TOTAL DISSOLVED SOLIDS (500)*	24
COLOR (15 s.u.)*	8	MERCURY	.0008	TURBIDITY (5 s.u.)*	1.8
COPPER (1.0)*	.020	NITRATE (45)*	<1.0	ZINC (5.0)*	10.0

*RECOMMENDED LIMIT **MANDATORY LIMIT
ALL VALUES ARE MILLIGRAMS PER LITER UNLESS OTHERWISE NOTED.

BACTERIOLOGICAL RESULTS

	COLIFORM/100 ml	FECAL COLIFORM/100 ml
RAW WATER		
DISTRIBUTION #1	0	0
DISTRIBUTION #2	0	0

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REPORT ON INDIVIDUAL WATER SUPPLIES
U.S. FOREST SERVICE STUDY

NAME OF FOREST Nantahala National Forest
NAME OF SUPPLY Cheoah Ranger Station
TREATMENT none
DATE OF SURVEY 9/13/73
STORAGE Underground concrete tank
SOURCE Well

BACTERIOLOGICAL QUALITY
NUMBER OF MONTHS IN PAST YEAR OF OPERATION THAT NO BACTERIOLOGICAL SAMPLES WERE TAKEN. 0
NUMBER OF MONTHS IN PAST YEAR OF OPERATION THAT ONE BACTERIOLOGICAL SAMPLE WAS TAKEN. 11
NUMBER OF MONTHS WHEN THE BACTERIOLOGICAL LIMITS OF THE DWS WERE NOT MET. 6

CHEMICAL QUALITY
DWS MANDATORY LIMITS FAILED
DWS RECOMMENDED LIMITS FAILED

SANITARY CONDITIONS
IS THE SOURCE PROTECTION ADEQUATE? YES X NO ___
IS OPERATION AND CONTROL ADEQUATE? YES X NO ___

IS THE WATER SYSTEM CAPABLE OF DELIVERING A CONTINUOUS SUPPLY OF SAFE WATER WITHOUT MAJOR IMPROVEMENTS? YES ___ NO X
Overflow on reservoir should be screened.

PHYSICAL AND CHEMICAL RESULTS

ARSENIC (0.01)* (0.05)**	<.005	FLUORIDE (1.4 to 2.4) **	<.10	pH	7.2
BARIUM (1.0)**	<.05	IRON (0.3)*	.072	SELENIUM (0.01)**	<.005
CADMIUM (0.01)**	.000	LEAD (0.05)**	.000	SILVER (0.05)**	.000
CHLORIDE (250)*	<10.	M.B.A.S. (0.5)*	<.250	SULFATE (250)*	<25.
CHROMIUM (.05)**	.000	MANGANESE (0.05)*	.012	TOTAL DISSOLVED SOLIDS (500)*	<10
COLOR (15 s.u.)*	3	MERCURY	<.0005	TURBIDITY (5 s.u.)*	.2
COPPER (1.0)*	.000	NITRATE (45)*	<1.0	ZINC (5.0)*	.480

*RECOMMENDED LIMIT **MANDATORY LIMIT
ALL VALUES ARE MILLIGRAMS PER LITER UNLESS OTHERWISE NOTED.

BACTERIOLOGICAL RESULTS

	COLIFORM/100 ml	FECAL COLIFORM/100 ml
RAW WATER		
DISTRIBUTION #1	0	0
DISTRIBUTION #2	0	0

REPORT ON INDIVIDUAL WATER SUPPLIES
U.S. FOREST SERVICE STUDY

NAME OF FOREST Nantahala National Forest
NAME OF SUPPLY Cable Cove
TREATMENT none
DATE OF SURVEY 9/13/73
STORAGE none
SOURCE Handpumped well

BACTERIOLOGICAL QUALITY
NUMBER OF MONTHS IN PAST YEAR OF OPERATION THAT NO BACTERIOLOGICAL SAMPLES WERE TAKEN. 0
NUMBER OF MONTHS IN PAST YEAR OF OPERATION THAT ONE BACTERIOLOGICAL SAMPLE WAS TAKEN. 5
NUMBER OF MONTHS WHEN THE BACTERIOLOGICAL LIMITS OF THE DWS WERE NOT MET. 0

CHEMICAL QUALITY
DWS MANDATORY LIMITS FAILED
DWS RECOMMENDED LIMITS FAILED Iron

SANITARY CONDITIONS
IS THE SOURCE PROTECTION ADEQUATE? YES x NO ___

IS OPERATION AND CONTROL ADEQUATE? YES x NO ___

IS THE WATER SYSTEM CAPABLE OF DELIVERING A CONTINUOUS SUPPLY OF SAFE WATER WITHOUT MAJOR IMPROVEMENTS? YES x NO ___

PHYSICAL AND CHEMICAL RESULTS

ARSENIC (0.01)*	<.005	FLUORIDE (1.4 to 2.4) **	<.10	pH	6.4
(0.05)**		IRON (0.3)*	1.200	SELENIUM (0.01)**	<.005
BARIUM (1.0)**	<.05	LEAD (0.05)**	.000	SILVER (0.05)**	.000
CADMIUM (0.01)**	.000	M.B.A.S. (0.5)*	<.250	SULFATE (250)*	<25.
CHLORIDE (250)*	<10.	MANGANESE (0.05)*	.029	TOTAL DISSOLVED SOLIDS (500)*	22.
CHROMIUM (.05)**	.000	MERCURY	<.0005	TURBIDITY (5 s.u.)*	.4
COLOR (15 s.u.)*	3	NITRATE (45)*	<1.0	ZINC (5.0)*	.410
COPPER (1.0)*	.006				

*RECOMMENDED LIMIT **MANDATORY LIMIT
ALL VALUES ARE MILLIGRAMS PER LITER UNLESS OTHERWISE NOTED.

BACTERIOLOGICAL RESULTS

	COLIFORM/100 ml	FECAL COLIFORM/100 ml
RAW WATER		
DISTRIBUTION #1	0	0
DISTRIBUTION #2		

REPORT ON INDIVIDUAL WATER SUPPLIES
U.S. FOREST SERVICE STUDY

NAME OF FOREST Nantahala National Forest
NAME OF SUPPLY Snowbird
TREATMENT none
DATE OF SURVEY 9/13/73
STORAGE none
SOURCE Spring

BACTERIOLOGICAL QUALITY
NUMBER OF MONTHS IN PAST YEAR OF OPERATION THAT NO BACTERIOLOGICAL SAMPLES WERE TAKEN. 1
NUMBER OF MONTHS IN PAST YEAR OF OPERATION THAT ONE BACTERIOLOGICAL SAMPLE WAS TAKEN. 2
NUMBER OF MONTHS WHEN THE BACTERIOLOGICAL LIMITS OF THE DWS WERE NOT MET. 1

CHEMICAL QUALITY
DWS MANDATORY LIMITS FAILED
DWS RECOMMENDED LIMITS FAILED

SANITARY CONDITIONS
IS THE SOURCE PROTECTION ADEQUATE? YES ___ ? NO ___

IS OPERATION AND CONTROL ADEQUATE? YES x NO ___

IS THE WATER SYSTEM CAPABLE OF DELIVERING A CONTINUOUS SUPPLY OF SAFE WATER WITHOUT MAJOR IMPROVEMENTS? YES x NO ___

PHYSICAL AND CHEMICAL RESULTS

ARSENIC (0.01)*	<.005	FLUORIDE (1.4 to 2.4) **	<.10	pH	6.8
(0.05)**		IRON (0.3)*	.025	SELENIUM (0.01)**	<.005
BARIUM (1.0)**	<.05	LEAD (0.05)**	.000	SILVER (0.05)**	.000
CADMIUM (0.01)**	.000	M.B.A.S. (0.5)*	<.250	SULFATE (250)*	< 25.
CHLORIDE (250)*	<10.	MANGANESE (0.05)*	.000	TOTAL DISSOLVED SOLIDS (500)*	24.
CHROMIUM (.05)**	.000	MERCURY	<.0005	TURBIDITY (5 s.u.)*	.3
COLOR (15 s.u.)*	3	NITRATE (45)*	<1.0	ZINC (5.0)*	.43
COPPER (1.0)*	.006				

*RECOMMENCED LIMIT **MANDATORY LIMIT
ALL VALUES ARE MILLIGRAMS PER LITER UNLESS OTHERWISE NOTED.

BACTERIOLOGICAL RESULTS

	COLIFORM/100 ml	FECAL COLIFORM/100 ml
RAW WATER		
DISTRIBUTION #1	0	0
DISTRIBUTION #2		

REPORT ON INDIVIDUAL WATER SUPPLIES
U.S. FOREST SERVICE STUDY

NAME OF FOREST Pisgah National Forest
NAME OF SUPPLY North Mills River
TREATMENT Sand filtration, chlorination
DATE OF SURVEY 9/10/73
STORAGE Underground concrete tank
SOURCE Lake

BACTERIOLOGICAL QUALITY

NUMBER OF MONTHS IN PAST YEAR OF OPERATION THAT NO BACTERIOLOGICAL SAMPLES WERE TAKEN. 1

NUMBER OF MONTHS IN PAST YEAR OF OPERATION THAT ONE BACTERIOLOGICAL SAMPLE WAS TAKEN. 5

NUMBER OF MONTHS WHEN THE BACTERIOLOGICAL LIMITS OF THE DWS WERE NOT MET. 1

CHEMICAL QUALITY

DWS MANDATORY LIMITS FAILED

DWS RECOMMENDED LIMITS FAILED

SANITARY CONDITIONS

IS THE SOURCE PROTECTION ADEQUATE? YES X NO ___

IS OPERATION AND CONTROL ADEQUATE? YES ___ NO X

Chlorine residual should be checked and recorded daily. No chlorine residual in distribution system on the day of the survey.

IS THE WATER SYSTEM CAPABLE OF DELIVERING A CONTINUOUS SUPPLY OF SAFE WATER WITHOUT MAJOR IMPROVEMENTS? YES X NO ___

PHYSICAL AND CHEMICAL RESULTS

ARSENIC (0.01)*	<.005	FLUORIDE (1.4 to 2.4) **	<.10	pH	6.6
(0.05)**		IRON (0.3)*	.052	SELENIUM (0.01)**	<.005
BARIUM (1.0)**	<.05	LEAD (0.05)**	.000	SILVER (0.05)**	.000
CADMIUM (0.01)**	.000	M.B.A.S. (0.5)*	<.250	SULFATE (250)*	<25.
CHLORIDE (250)*	<10.	MANGANESE (0.05)*	.000	TOTAL DISSOLVED SOLIDS (500)*	26.
CHROMIUM (.05)**	.000	MERCURY	<.0005	TURBIDITY (5 s.u.)*	.3
COLOR (15 s.u.)*	6	NITRATE (45)*	<1.0	ZINC (5.0)*	.270
COPPER (1.0)*	.013				

*RECOMMENDED LIMIT **MANDATORY LIMIT
ALL VALUES ARE MILLIGRAMS PER LITER UNLESS OTHERWISE NOTED.

BACTERIOLOGICAL RESULTS

	COLIFORM/100 ml	FECAL COLIFORM/100 ml
RAW WATER		
DISTRIBUTION #1	0	0
DISTRIBUTION #2	0	0

REPORT ON INDIVIDUAL WATER SUPPLIES
U.S. FOREST SERVICE STUDY

NAME OF FOREST Pisgah National Forest
NAME OF SUPPLY Lake Powhatan
TREATMENT none
DATE OF SURVEY 9/10/73
STORAGE Underground concrete tank
SOURCE Well

BACTERIOLOGICAL QUALITY

NUMBER OF MONTHS IN PAST YEAR OF OPERATION THAT NO BACTERIOLOGICAL SAMPLES WERE TAKEN. 4

NUMBER OF MONTHS IN PAST YEAR OF OPERATION THAT ONE BACTERIOLOGICAL SAMPLE WAS TAKEN. 7

NUMBER OF MONTHS WHEN THE BACTERIOLOGICAL LIMITS OF THE DWS WERE NOT MET. 0

CHEMICAL QUALITY

DWS MANDATORY LIMITS FAILED

DWS RECOMMENDED LIMITS FAILED

SANITARY CONDITIONS

IS THE SOURCE PROTECTION ADEQUATE? YES X NO ___

IS OPERATION AND CONTROL ADEQUATE? YES X NO ___

IS THE WATER SYSTEM CAPABLE OF DELIVERING A CONTINUOUS SUPPLY OF SAFE WATER WITHOUT MAJOR IMPROVEMENTS? YES ___ NO X

There is a cross connection to an unsafe spring box.

PHYSICAL AND CHEMICAL RESULTS

ARSENIC (0.01)*	<.005	FLUORIDE (1.4 to 2.4) **	<.10	pH	7.0
(0.05)**		IRON (0.3)*	.130	SELENIUM (0.01)**	<.005
BARIUM (1.0)**	<.05	LEAD (0.05)**	.000	SILVER (0.05)**	.000
CADMIUM (0.01)**	.000	M.B.A.S. (0.5)*	<.250	SULFATE (250)*	<25.
CHLORIDE (250)*	<10.	MANGANESE (0.05)*	.010	TOTAL DISSOLVED SOLIDS (500)*	78.
CHROMIUM (.05)**	.000	MERCURY	.0007	TURBIDITY (5 s.u.)*	.7
COLOR (15 s.u.)*	2	NITRATE (45)*	<1.0	ZINC (5.0)*	2.240
COPPER (1.0)*	.007				

*RECOMMENDED LIMIT **MANDATORY LIMIT
ALL VALUES ARE MILLIGRAMS PER LITER UNLESS OTHERWISE NOTED.

BACTERIOLOGICAL RESULTS

	COLIFORM/100 ml	FECAL COLIFORM/100 ml
RAW WATER		
DISTRIBUTION #1	0	0
DISTRIBUTION #2	1	0

REPORT ON INDIVIDUAL WATER SUPPLIES
U.S. FOREST SERVICE STUDY

NAME OF FOREST Pisgah National Forest
NAME OF SUPPLY Vanhook Campground
TREATMENT chlorination

DATE OF SURVEY 9/11/73
STORAGE Underground concrete tank
SOURCE Spring

BACTERIOLOGICAL QUALITY

NUMBER OF MONTHS IN PAST YEAR OF OPERATION THAT NO BACTERIOLOGICAL SAMPLES WERE TAKEN. 2

NUMBER OF MONTHS IN PAST YEAR OF OPERATION THAT ONE BACTERIOLOGICAL SAMPLE WAS TAKEN. 6

NUMBER OF MONTHS WHEN THE BACTERIOLOGICAL LIMITS OF THE DWS WERE NOT MET. 1

CHEMICAL QUALITY

DWS MANDATORY LIMITS FAILED Bacteriological Standard
DWS RECOMMENDED LIMITS FAILED

SANITARY CONDITIONS

IS THE SOURCE PROTECTION ADEQUATE? YES x NO ___

IS OPERATION AND CONTROL ADEQUATE? YES ___ NO x

Chlorine residual should be checked and recorded daily. No chlorine residual was found in the distribution system on the day of the survey.

IS THE WATER SYSTEM CAPABLE OF DELIVERING A CONTINUOUS SUPPLY OF SAFE WATER WITHOUT MAJOR IMPROVEMENTS? YES x NO ___

PHYSICAL AND CHEMICAL RESULTS

ARSENIC (0.01)* (0.05)**	<.005	FLUORIDE (1.4 to 2.4) **	<.10	pH	6.8
				SELENIUM (0.01)**	<.005
BARIUM (1.0)**	<.05	IRON (0.3)*	.074	SILVER (0.05)**	.000
CADMIUM (0.01)**	.000	LEAD (0.05)**	.000	SULFATE (250)*	<25.
CHLORIDE (250)*	<10.	M.B.A.S. (0.5)*	<.250	TOTAL DISSOLVED	
CHROMIUM (.05)**	.000	MANGANESE (0.05)*	.000	SOLIDS (500)*	24.
COLOR (15 s.u.)*	3	MERCURY	.0007	TURBIDITY (5 s.u.)*	.2
COPPER (1.0)*	.013	NITRATE (45)*	<1.0	ZINC (5.0)*	.100

*RECOMMENDED LIMIT **MANDATORY LIMIT
ALL VALUES ARE MILLIGRAMS PER LITER UNLESS OTHERWISE NOTED.

BACTERIOLOGICAL RESULTS

	COLIFORM/100 ml	FECAL COLIFORM/100 ml
RAW WATER		
DISTRIBUTION #1	0	0
DISTRIBUTION #2	7	0

REPORT ON INDIVIDUAL WATER SUPPLIES
U.S. FOREST SERVICE STUDY

NAME OF FOREST Pisgah National Forest
NAME OF SUPPLY Sycamore Flats
TREATMENT none

DATE OF SURVEY 9/10/73
STORAGE Pressure tank
SOURCE Well

BACTERIOLOGICAL QUALITY

NUMBER OF MONTHS IN PAST YEAR OF OPERATION THAT NO BACTERIOLOGICAL SAMPLES WERE TAKEN. 2

NUMBER OF MONTHS IN PAST YEAR OF OPERATION THAT ONE BACTERIOLOGICAL SAMPLE WAS TAKEN. 3

NUMBER OF MONTHS WHEN THE BACTERIOLOGICAL LIMITS OF THE DWS WERE NOT MET. 0

CHEMICAL QUALITY

DWS MANDATORY LIMITS FAILED
DWS RECOMMENDED LIMITS FAILED Zinc

SANITARY CONDITIONS

IS THE SOURCE PROTECTION ADEQUATE? YES x NO ___

IS OPERATION AND CONTROL ADEQUATE? YES x NO ___

IS THE WATER SYSTEM CAPABLE OF DELIVERING A CONTINUOUS SUPPLY OF SAFE WATER WITHOUT MAJOR IMPROVEMENTS? YES x NO ___

PHYSICAL AND CHEMICAL RESULTS

ARSENIC (0.01)* (0.05)**	<.005	FLUORIDE (1.4 to 2.4) **	<.10	pH	6.8
				SELENIUM (0.01)**	<.005
BARIUM (1.0)**	<.05	IRON (0.3)*	.240	SILVER (0.05)**	.000
CADMIUM (0.01)**	.000	LEAD (0.05)**	.000	SULFATE (250)*	<25.
CHLORIDE (250)*	<10.	M.B.A.S. (0.5)*	<.250	TOTAL DISSOLVED	
CHROMIUM (.05)**	.000	MANGANESE (0.05)*	.007	SOLIDS (500)*	75.
COLOR (15 s.u.)*	3	MERCURY	.0006	TURBIDITY (5 s.u.)*	.3
COPPER (1.0)*	.003	NITRATE (45)*	<1.0	ZINC (5.0)*	8.300

*RECOMMENDED LIMIT **MANDATORY LIMIT
ALL VALUES ARE MILLIGRAMS PER LITER UNLESS OTHERWISE NOTED.

BACTERIOLOGICAL RESULTS

	COLIFORM/100 ml	FECAL COLIFORM/100 ml
RAW WATER		
DISTRIBUTION #1	0	0
DISTRIBUTION #2	0	0

REPORT ON INDIVIDUAL WATER SUPPLIES
U.S. FOREST SERVICE STUDY

NAME OF FOREST Pisgah National Forest
NAME OF SUPPLY Pisgah Ranger Station
TREATMENT None
DATE OF SURVEY 9/11/73
STORAGE Underground Concrete Tank
SOURCE Well

BACTERIOLOGICAL QUALITY
NUMBER OF MONTHS IN PAST YEAR OF OPERATION THAT NO BACTERIOLOGICAL SAMPLES WERE TAKEN. 4
NUMBER OF MONTHS IN PAST YEAR OF OPERATION THAT ONE BACTERIOLOGICAL SAMPLE WAS TAKEN. 7
NUMBER OF MONTHS WHEN THE BACTERIOLOGICAL LIMITS OF THE DWS WERE NOT MET. 0

CHEMICAL QUALITY
DWS MANDATORY LIMITS FAILED Bacteriological Standard
DWS RECOMMENDED LIMITS FAILED Zinc

SANITARY CONDITIONS
IS THE SOURCE PROTECTION ADEQUATE? YES ___ NO X
Well has no sanitary seal, no screen on vent, and is in a flooded well pit.

IS OPERATION AND CONTROL ADEQUATE? YES X NO ___

IS THE WATER SYSTEM CAPABLE OF DELIVERING A CONTINUOUS SUPPLY OF SAFE WATER WITHOUT MAJOR IMPROVEMENTS? YES NO X
Storage tank overflow should be screened.
Source protection needs improvement.

PHYSICAL AND CHEMICAL RESULTS

ARSENIC (0.01)* (0.05)**	<.005	FLUORIDE (1.4 to 2.4) **	<.10	pH	6.8
BARIUM (1.0)**	<.05	IRON (0.3)*	.032	SELENIUM (0.01)**	<.005
CADMIUM (0.01)**	.000	LEAD (0.05)**	.000	SILVER (0.05)**	.000
CHLORIDE (250)*	<10	M.B.A.S. (0.5)*	<.250	SULFATE (250)*	< 25.
CHROMIUM (.05)**	.000	MANGANESE (0.05)*	.007	TOTAL DISSOLVED SOLIDS (500)*	36.
COLOR (15 s.u.)*	3	MERCURY	<.0005	TURBIDITY (5 s.u.)*	.1
COPPER (1.0)*	.000	NITRATE (45)*	<1.0	ZINC (5.0)*	17.0

*RECOMMENDED LIMIT **MANDATORY LIMIT
ALL VALUES ARE MILLIGRAMS PER LITER UNLESS OTHERWISE NOTED.

BACTERIOLOGICAL RESULTS

	COLIFORM/100 ml	FECAL COLIFORM/100 ml
RAW WATER	Confluent Growth with Coliform	0
DISTRIBUTION #1	0	0
DISTRIBUTION #2		

105<

REPORT ON INDIVIDUAL WATER SUPPLIES
U.S. FOREST SERVICE STUDY

NAME OF FOREST Pisgah National Forest
NAME OF SUPPLY Coon Tree Creek
TREATMENT none
DATE OF SURVEY 9/10/73
STORAGE Underground concrete tank
SOURCE Well

BACTERIOLOGICAL QUALITY
NUMBER OF MONTHS IN PAST YEAR OF OPERATION THAT NO BACTERIOLOGICAL SAMPLES WERE TAKEN. 4
NUMBER OF MONTHS IN PAST YEAR OF OPERATION THAT ONE BACTERIOLOGICAL SAMPLE WAS TAKEN. 8
NUMBER OF MONTHS WHEN THE BACTERIOLOGICAL LIMITS OF THE DWS WERE NOT MET. 0

CHEMICAL QUALITY
DWS MANDATORY LIMITS FAILED
DWS RECOMMENDED LIMITS FAILED

SANITARY CONDITIONS
IS THE SOURCE PROTECTION ADEQUATE? YES X NO ___

IS OPERATION AND CONTROL ADEQUATE? YES X NO ___

IS THE WATER SYSTEM CAPABLE OF DELIVERING A CONTINUOUS SUPPLY OF SAFE WATER WITHOUT MAJOR IMPROVEMENTS? YES X NO ___

PHYSICAL AND CHEMICAL RESULTS

ARSENIC (0.01)* (0.05)**	<.005	FLUORIDE (1.4 to 2.4) **	<.10	pH	7.0
BARIUM (1.0)**	<.05	IRON (0.3)*	.019	SELENIUM (0.01)**	<.005
CADMIUM (0.01)**	.000	LEAD (0.05)**	.000	SILVER (0.05)**	.000
CHLORIDE (250)*	<10.	M.B.A.S. (0.5)*	<.250	SULFATE (250)*	< 25.
CHROMIUM (.05)**	.000	MANGANESE (0.05)*	.000	TOTAL DISSOLVED SOLIDS (500)*	59.
COLOR (15 s.u.)*	3	MERCURY	.0009	TURBIDITY (5 s.u.)*	.7
COPPER (1.0)*	.000	NITRATE (45)*	<1.0	ZINC (5.0)*	.094

*RECOMMENDED LIMIT **MANDATORY LIMIT
ALL VALUES ARE MILLIGRAMS PER LITER UNLESS OTHERWISE NOTED.

BACTERIOLOGICAL RESULTS

	COLIFORM/100 ml	FECAL COLIFORM/100 ml
RAW WATER		
DISTRIBUTION #1	0	0
DISTRIBUTION #2	0	0

REPORT ON INDIVIDUAL WATER SUPPLIES
U.S. FOREST SERVICE STUDY

NAME OF FOREST Pisgah National Forest
NAME OF SUPPLY Cradle of Forestry
TREATMENT Sand filtration, chlorination
DATE OF SURVEY 9/11/73
STORAGE Concrete tanks
SOURCE Stream

BACTERIOLOGICAL QUALITY

NUMBER OF MONTHS IN PAST YEAR OF OPERATION THAT NO BACTERIOLOGICAL SAMPLES WERE TAKEN. 3

NUMBER OF MONTHS IN PAST YEAR OF OPERATION THAT ONE BACTERIOLOGICAL SAMPLE WAS TAKEN. 9

NUMBER OF MONTHS WHEN THE BACTERIOLOGICAL LIMITS OF THE DWS WERE NOT MET. 0

CHEMICAL QUALITY

DWS MANDATORY LIMITS FAILED Bacteriological Standard
DWS RECOMMENDED LIMITS FAILED

SANITARY CONDITIONS

IS THE SOURCE PROTECTION ADEQUATE? YES ___ NO x

Plywood should be replaced by an adequate cover at the source. Source should be fenced.

IS OPERATION AND CONTROL ADEQUATE? YES ___ NO x

There was no chlorine residual in the distribution system at the time of the survey.

IS THE WATER SYSTEM CAPABLE OF DELIVERING A CONTINUOUS SUPPLY OF SAFE WATER WITHOUT MAJOR IMPROVEMENTS? YES ___ NO x

Storage tank should be properly screened. Source protection needs improvement.

PHYSICAL AND CHEMICAL RESULTS

ARSENIC (0.01)* (0.05)**	<.005	FLUORIDE (1.4 to 2.4) **	<.10	pH	6.3
BARIUM (1.0)**	<.05	IRON (0.3)*	.044	SELENIUM (0.01)**	<.005
CADMIUM (0.01)**	.000	LEAD (0.05)**	.000	SILVER (0.05)**	.000
CHLORIDE (250)*	<10.	M.B.A.S. (0.5)*	<250	SULFATE (250)*	< 25.
CHROMIUM (.05)**	.000	MANGANESE (0.05)*	.000	TOTAL DISSOLVED SOLIDS (500)*	16.
COLOR (15 s.u.)*	5	MERCURY	<.0005	TURBIDITY (5 s.u.)*	.1
COPPER (1.0)*	.015	NITRATE (45)*	<1.0	ZINC (5.0)*	140

*RECOMMENDED LIMIT **MANDATORY LIMIT
ALL VALUES ARE MILLIGRAMS PER LITER UNLESS OTHERWISE NOTED.

BACTERIOLOGICAL RESULTS

	COLIFORM/100 ml	FECAL COLIFORM/100 ml
RAW WATER		
DISTRIBUTION #1	12	0
DISTRIBUTION #2	0	0

REPORT ON INDIVIDUAL WATER SUPPLIES
U.S. FOREST SERVICE STUDY

NAME OF FOREST Pisgah National Forest
NAME OF SUPPLY White Pines
TREATMENT none
DATE OF SURVEY 9/11/73
STORAGE Underground concrete tank
SOURCE Springs

BACTERIOLOGICAL QUALITY

NUMBER OF MONTHS IN PAST YEAR OF OPERATION THAT NO BACTERIOLOGICAL SAMPLES WERE TAKEN. 2

NUMBER OF MONTHS IN PAST YEAR OF OPERATION THAT ONE BACTERIOLOGICAL SAMPLE WAS TAKEN. 1

NUMBER OF MONTHS WHEN THE BACTERIOLOGICAL LIMITS OF THE DWS WERE NOT MET. 1

CHEMICAL QUALITY

DWS MANDATORY LIMITS FAILED Bacteriological Standard
DWS RECOMMENDED LIMITS FAILED

SANITARY CONDITIONS

IS THE SOURCE PROTECTION ADEQUATE? YES ___ NO x

Springs should be fenced.

IS OPERATION AND CONTROL ADEQUATE? YES x NO ___

IS THE WATER SYSTEM CAPABLE OF DELIVERING A CONTINUOUS SUPPLY OF SAFE WATER WITHOUT MAJOR IMPROVEMENTS? YES ___ NO x

Storage tank overflow should be screened.

PHYSICAL AND CHEMICAL RESULTS

ARSENIC (0.01)* (0.05)**	<.005	FLUORIDE (1.4 to 2.4) **	.10	pH	6.6
BARIUM (1.0)**	<.05	IRON (0.3)*	.025	SELENIUM (0.01)**	< .005
CADMIUM (0.01)**	.000	LEAD (0.05)**	.000	SILVER (0.05)**	.000
CHLORIDE (250)*	<10	M.B.A.S. (0.5)*	<.250	SULFATE (250)*	< 25.
CHROMIUM (.05)**	.000	MANGANESE (0.05)*	.000	TOTAL DISSOLVED SOLIDS (500)*	19.
COLOR (15 s.u.)*	3	MERCURY	<.0005	TURBIDITY (5 s.u.)*	.2
COPPER (1.0)*	.020	NITRATE (45)*	<1.0	ZINC (5.0)*	.220

*RECOMMENDED LIMIT **MANDATORY LIMIT
ALL VALUES ARE MILLIGRAMS PER LITER UNLESS OTHERWISE NOTED.

BACTERIOLOGICAL RESULTS

	COLIFORM/100 ml	FECAL COLIFORM/100 ml
RAW WATER		
DISTRIBUTION #1	15	0
DISTRIBUTION #2	3	0

REPORT ON INDIVIDUAL WATER SUPPLIES
U.S. FOREST SERVICE STUDY

NAME OF FOREST Chattahoochee Nat'l Forest
NAME OF SUPPLY Mulky
TREATMENT none
DATE OF SURVEY 9/19/73
STORAGE none
SOURCE Handpumped well

BACTERIOLOGICAL QUALITY
NUMBER OF MONTHS IN PAST YEAR OF OPERATION THAT NO BACTERIOLOGICAL SAMPLES WERE TAKEN. 10
NUMBER OF MONTHS IN PAST YEAR OF OPERATION THAT ONE BACTERIOLOGICAL SAMPLE WAS TAKEN. 1
NUMBER OF MONTHS WHEN THE BACTERIOLOGICAL LIMITS OF THE DWS WERE NOT MET. 1

CHEMICAL QUALITY
DWS MANDATORY LIMITS FAILED
DWS RECOMMENDED LIMITS FAILED Iron, Zinc

SANITARY CONDITIONS
IS THE SOURCE PROTECTION ADEQUATE? YES x NO ___

IS OPERATION AND CONTROL ADEQUATE? YES x NO ___

IS THE WATER SYSTEM CAPABLE OF DELIVERING A CONTINUOUS SUPPLY OF SAFE WATER WITHOUT MAJOR IMPROVEMENTS? YES x NO ___

PHYSICAL AND CHEMICAL RESULTS

ARSENIC (0.01)* (0.05)**	<.005	FLUORIDE (1.4 to 2.4) **	.25	pH	7.2
BARIUM (1.0)**	<.05	IRON (0.3)*	.370	SELENIUM (0.01)**	<.005
CADMIUM (0.01)**	.000	LEAD (0.05)**	.000	SILVER (0.05)**	.000
CHLORIDE (250)*	<10.	M.B.A.S. (0.5)*	<.250	SULFATE (250)*	<25.
CHROMIUM (.05)**	.000	MANGANESE (0.05)*	.046	TOTAL DISSOLVED SOLIDS (500)*	92.
COLOR (15 s.u.)*	8	MERCURY	<.0005	TURBIDITY (5 s.u.)*	3.8
COPPER (1.0)*	.000	NITRATE (45)*	<1.0	ZINC (5.0)*	17.5

*RECOMMENDED LIMIT **MANDATORY LIMIT
ALL VALUES ARE MILLIGRAMS PER LITER UNLESS OTHERWISE NOTED.

BACTERIOLOGICAL RESULTS

	COLIFORM/100 ml	FECAL COLIFORM/100 ml
RAW WATER		
DISTRIBUTION #1	1	0
DISTRIBUTION #2		

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REPORT ON INDIVIDUAL WATER SUPPLIES
U.S. FOREST SERVICE STUDY

NAME OF FOREST Pisgah National Forest
NAME OF SUPPLY Schenck Job Corps Center
TREATMENT none
DATE OF SURVEY 9/11/73
STORAGE Underground concrete tank
SOURCE Wells

BACTERIOLOGICAL QUALITY
NUMBER OF MONTHS IN PAST YEAR OF OPERATION THAT NO BACTERIOLOGICAL SAMPLES WERE TAKEN. 2
NUMBER OF MONTHS IN PAST YEAR OF OPERATION THAT ONE BACTERIOLOGICAL SAMPLE WAS TAKEN. 1
NUMBER OF MONTHS WHEN THE BACTERIOLOGICAL LIMITS OF THE DWS WERE NOT MET. 0

CHEMICAL QUALITY
DWS MANDATORY LIMITS FAILED Bacteriological Standard
DWS RECOMMENDED LIMITS FAILED

SANITARY CONDITIONS
IS THE SOURCE PROTECTION ADEQUATE? YES ___ NO x
Standby well drain is clogged and well is flooded.

IS OPERATION AND CONTROL ADEQUATE? YES x NO ___

IS THE WATER SYSTEM CAPABLE OF DELIVERING A CONTINUOUS SUPPLY OF SAFE WATER WITHOUT MAJOR IMPROVEMENTS? YES ___ NO x
Standby well is flooded and cross-connected to system.

PHYSICAL AND CHEMICAL RESULTS

ARSENIC (0.01)* (0.05)**	<.005	FLUORIDE (1.4 to 2.4) **	<.10	pH	6.2
BARIUM (1.0)**	<.05	IRON (0.3)*	.074	SELENIUM (0.01)**	<.005
CADMIUM (0.01)**	.000	LEAD (0.05)**	.000	SILVER (0.05)**	.000
CHLORIDE (250)*	<10.	M.B.A.S. (0.5)*	<.250	SULFATE (250)*	<25.
CHROMIUM (.05)**	.000	MANGANESE (0.05)*	.007	TOTAL DISSOLVED SOLIDS (500)*	29.
COLOR (15 s.u.)*	3	MERCURY	<.0005	TURBIDITY (5 s.u.)*	.1
COPPER (1.0)*	.007	NITRATE (45)*	<1.0	ZINC (5.0)*	.610

*RECOMMENDED LIMIT **MANDATORY LIMIT
ALL VALUES ARE MILLIGRAMS PER LITER UNLESS OTHERWISE NOTED.

BACTERIOLOGICAL RESULTS

	COLIFORM/100 ml	FECAL COLIFORM/100 ml
RAW WATER		
DISTRIBUTION #1	Confluent Growth with coliform	0
DISTRIBUTION #2	0	0

REPORT ON INDIVIDUAL WATER SUPPLIES
U.S. FOREST SERVICE STUDY

NAME OF FOREST Chattahoochee National Forest DATE OF SURVEY 9/17/73
NAME OF SUPPLY Lake Russell STORAGE none
TREATMENT none SOURCE handpumped well

BACTERIOLOGICAL QUALITY
NUMBER OF MONTHS IN PAST YEAR OF OPERATION THAT NO BACTERIOLOGICAL SAMPLES WERE TAKEN. 11
NUMBER OF MONTHS IN PAST YEAR OF OPERATION THAT ONE BACTERIOLOGICAL SAMPLE WAS TAKEN. 1
NUMBER OF MONTHS WHEN THE BACTERIOLOGICAL LIMITS OF THE DWS WERE NOT MET. 0

CHEMICAL QUALITY
DWS MANDATORY LIMITS FAILED Bacteriological Standard
DWS RECOMMENDED LIMITS FAILED Zinc

SANITARY CONDITIONS
IS THE SOURCE PROTECTION ADEQUATE? YES x NO ___

IS OPERATION AND CONTROL ADEQUATE? YES x NO ___

IS THE WATER SYSTEM CAPABLE OF DELIVERING A CONTINUOUS SUPPLY OF SAFE WATER WITHOUT MAJOR IMPROVEMENTS? YES x NO ___

PHYSICAL AND CHEMICAL RESULTS

ARSENIC (0.01)*	<.005	FLUORIDE (1.4 to 2.4) **	<.10	pH	7.2
(0.05)**				SELENIUM (0.01)**	<.005
BARIUM (1.0)**	<.05	IRON (0.3)*	.260	SILVER (0.05)**	.000
CADMIUM (0.01)**	.000	LEAD (0.05)**	.000	SULFATE (250)*	<25.
CHLORIDE (250)*	<10.	M.B.A.S. (0.5)*	<.250	TOTAL DISSOLVED	
CHROMIUM (.05)**	.000	MANGANESE (0.05)*	.026	SOLIDS (500)*	79.
COLOR (15 s.u.)*	7	MERCURY	<.0005	TURBIDITY (5 s.u.)*	.1
COPPER (1.0)*	.012	NITRATE (45)*	<1.0	ZINC (5.0)*	14.9

*RECOMMENDED LIMIT **MANDATORY LIMIT
ALL VALUES ARE MILLIGRAMS PER LITER UNLESS OTHERWISE NOTED.

BACTERIOLOGICAL RESULTS

	COLIFORM/100 ml	FECAL COLIFORM/100 ml
RAW WATER		
DISTRIBUTION #1	Growth was confluent w/coliform	0
DISTRIBUTION #2		

REPORT ON INDIVIDUAL WATER SUPPLIES
U.S. FOREST SERVICE STUDY

NAME OF FOREST Chattahoochee National Forest DATE OF SURVEY 9/19/73
NAME OF SUPPLY Cooper Creek STORAGE Undergrouod concrete
TREATMENT none SOURCE Spring reservoir

BACTERIOLOGICAL QUALITY
NUMBER OF MONTHS IN PAST YEAR OF OPERATION THAT NO BACTERIOLOGICAL SAMPLES WERE TAKEN. 3
NUMBER OF MONTHS IN PAST YEAR OF OPERATION THAT ONE BACTERIOLOGICAL SAMPLE WAS TAKEN. 1
NUMBER OF MONTHS WHEN THE BACTERIOLOGICAL LIMITS OF THE DWS WERE NOT MET. 1

CHEMICAL QUALITY
DWS MANDATORY LIMITS FAILED Bacteriological Standard
DWS RECOMMENDED LIMITS FAILED Iron

SANITARY CONDITIONS
IS THE SOURCE PROTECTION ADEQUATE? YES ___ NO x
Overflow on spring should be screened.

IS OPERATION AND CONTROL ADEQUATE? YES x NO ___

IS THE WATER SYSTEM CAPABLE OF DELIVERING A CONTINUOUS SUPPLY OF SAFE WATER WITHOUT MAJOR IMPROVEMENTS? YES ___ NO x
Overflow on reservoir should be screened.

PHYSICAL AND CHEMICAL RESULTS

ARSENIC (0.01)*	<.005	FLUORIDE (1.4 to 2.4) **	<.10	pH	6.4
(0.05)**				SELENIUM (0.01)**	<.005
BARIUM (1.0)**	<.05	IRON (0.3)*	1.800	SILVER (0.05)**	.000
CADMIUM (0.01)**	.000	LEAD (0.05)**	.000	SULFATE (250)*	<25.
CHLORIDE (250)*	<10.	M.B.A.S. (0.5)*	<.250	TOTAL DISSOLVED	
CHROMIUM (.05)**	.000	MANGANESE (0.05)*	.006	SOLIDS (500)*	20.
COLOR (15 s.u.)*	3	MERCURY	<.0005	TURBIDITY (5 s.u.)*	1.8
COPPER (1.0)*	.018	NITRATE (45)*	<1.0	ZINC (5.0)*	.600

*RECOMMENDED LIMIT **MANDATORY LIMIT
ALL VALUES ARE MILLIGRAMS PER LITER UNLESS OTHERWISE NOTED.

BACTERIOLOGICAL RESULTS

	COLIFORM/100 ml	FECAL COLIFORM/100 ml
RAW WATER		
DISTRIBUTION #1	Growth Confluent with coliform	18
DISTRIBUTION #2	Growth Confluent with coliform	22

REPORT ON INDIVIDUAL WATER SUPPLIES
U.S. FOREST SERVICE STUDY

NAME OF FOREST Chattahoochee National Forest DATE OF SURVEY 9/17/73
NAME OF SUPPLY Soquee STORAGE none
TREATMENT none SOURCE handpumped well

BACTERIOLOGICAL QUALITY
NUMBER OF MONTHS IN PAST YEAR OF OPERATION THAT NO BACTERIOLOGICAL SAMPLES WERE TAKEN. 11
NUMBER OF MONTHS IN PAST YEAR OF OPERATION THAT ONE BACTERIOLOGICAL SAMPLE WAS TAKEN. 1
NUMBER OF MONTHS WHEN THE BACTERIOLOGICAL LIMITS OF THE DWS WERE NOT MET. 0

CHEMICAL QUALITY
DWS MANDATORY LIMITS FAILED
DWS RECOMMENDED LIMITS FAILED Color, Iron, Manganese, Turbidity Zinc

SANITARY CONDITIONS
IS THE SOURCE PROTECTION ADEQUATE? YES x NO ___

IS OPERATION AND CONTROL ADEQUATE? YES x NO ___

IS THE WATER SYSTEM CAPABLE OF DELIVERING A CONTINUOUS SUPPLY OF SAFE WATER WITHOUT MAJOR IMPROVEMENTS? YES x NO ___

PHYSICAL AND CHEMICAL RESULTS

ARSENIC (0.01)* (0.05)**	<0.005	FLUORIDE (1.4 to 2.4) **	<0.1	pH	7.1
BARIUM (1.0)**	<0.05	IRON (0.3)*	10.0	SELENIUM (0.01)**	<0.005
CADMIUM (0.01)**	0.00	LEAD (0.05)**	0.00	SILVER (0.05)**	0.00
CHLORIDE (250)*	<10	M.B.A.S. (0.5)*	<.25	SULFATE (250)*	<25
CHROMIUM (.05)**	0.000	MANGANESE (0.05)*	0.12	TOTAL DISSOLVED SOLIDS (500)*	67
COLOR (15 s.u.)*	50	MERCURY	0.0007	TURBIDITY (5 s.u.)*	75.0
COPPER (1.0)*	0.025	NITRATE (45)*	<1	ZINC (5.0)*	5.5

*RECOMMENDED LIMIT **MANDATORY LIMIT
ALL VALUES ARE MILLIGRAMS PER LITER UNLESS OTHERWISE NOTED.

BACTERIOLOGICAL RESULTS

	COLIFORM/100 ml	FECAL COLIFORM/100 ml
RAW WATER		
DISTRIBUTION #1	0	0
DISTRIBUTION #2		

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REPORT ON INDIVIDUAL WATER SUPPLIES
U.S. FOREST SERVICE STUDY

NAME OF FOREST Chattahoochee National Forest DATE OF SURVEY 9/17/73
NAME OF SUPPLY Tallulah River STORAGE none
TREATMENT none SOURCE handpumped well

BACTERIOLOGICAL QUALITY
NUMBER OF MONTHS IN PAST YEAR OF OPERATION THAT NO BACTERIOLOGICAL SAMPLES WERE TAKEN. 11
NUMBER OF MONTHS IN PAST YEAR OF OPERATION THAT ONE BACTERIOLOGICAL SAMPLE WAS TAKEN. 0
NUMBER OF MONTHS WHEN THE BACTERIOLOGICAL LIMITS OF THE DWS WERE NOT MET. 1

CHEMICAL QUALITY
DWS MANDATORY LIMITS FAILED Bacteriological Standard
DWS RECOMMENDED LIMITS FAILED Iron

SANITARY CONDITIONS
IS THE SOURCE PROTECTION ADEQUATE? YES x NO ___

IS OPERATION AND CONTROL ADEQUATE? YES x NO ___

IS THE WATER SYSTEM CAPABLE OF DELIVERING A CONTINUOUS SUPPLY OF SAFE WATER WITHOUT MAJOR IMPROVEMENTS? YES x NO ___

PHYSICAL AND CHEMICAL RESULTS

ARSENIC (0.01)* (0.05)**	<.005	FLUORIDE (1.4 to 2.4) **	<.10	pH	7.2
BARIUM (1.0)**	<.05	IRON (0.3)*	.350	SELENIUM (0.01)**	<.005
CADMIUM (0.01)**	.000	LEAD (0.05)**	.000	SILVER (0.05)**	.000
CHLORIDE (250)*	<10.	M.B.A.S. (0.5)*	<.250	SULFATE (250)*	<25.
CHROMIUM (.05)**	.000	MANGANESE (0.05)*	.009	TOTAL DISSOLVED SOLIDS (500)*	49.
COLOR (15 s.u.)*	7	MERCURY	<.0005	TURBIDITY (5 s.u.)*	2.0
COPPER (1.0)*	.012	NITRATE (45)*	<1.0	ZINC (5.0)*	.220

*RECOMMENDED LIMIT **MANDATORY LIMIT
ALL VALUES ARE MILLIGRAMS PER LITER UNLESS OTHERWISE NOTED.

BACTERIOLOGICAL RESULTS

	COLIFORM/100 ml	FECAL COLIFORM/100 ml
RAW WATER		
DISTRIBUTION #1	5	
DISTRIBUTION #2		0

REPORT ON INDIVIDUAL WATER SUPPLIES
U.S. FOREST SERVICE STUDY

NAME OF FOREST Chattahoochee National Forest DATE OF SURVEY 9/18/73
NAME OF SUPPLY Andrews Cove STORAGE none
TREATMENT none SOURCE handpumped well

BACTERIOLOGICAL QUALITY
NUMBER OF MONTHS IN PAST YEAR OF OPERATION THAT NO BACTERIOLOGICAL SAMPLES WERE TAKEN. 11
NUMBER OF MONTHS IN PAST YEAR OF OPERATION THAT ONE BACTERIOLOGICAL SAMPLE WAS TAKEN. 1
NUMBER OF MONTHS WHEN THE BACTERIOLOGICAL LIMITS OF THE DWS WERE NOT MET. 0

CHEMICAL QUALITY
DWS MANDATORY LIMITS FAILED
DWS RECOMMENDED LIMITS FAILED

SANITARY CONDITIONS
IS THE SOURCE PROTECTION ADEQUATE? YES X NO ___

IS OPERATION AND CONTROL ADEQUATE? YES X NO ___

IS THE WATER SYSTEM CAPABLE OF DELIVERING A CONTINUOUS SUPPLY OF SAFE WATER WITHOUT MAJOR IMPROVEMENTS? YES X NO ___

PHYSICAL AND CHEMICAL RESULTS

ARSENIC (0.01)* (0.05)**	<.005	FLUORIDE (1.4 to 2.4) **	<.10	pH	7.0
BARIUM (1.0)**	<.05	IRON (0.3)*	.061	SELENIUM (0.01)**	<.005
CADMIUM (0.01)**	.000	LEAD (0.05)**	.000	SILVER (0.05)**	.000
CHLORIDE (250)*	<10.	M.B.A.S. (0.5)*	<.250	SULFATE (250)*	<25.
CHROMIUM (.05)**	.000	MANGANESE (0.05)*	.000	TOTAL DISSOLVED SOLIDS (500)*	37.
COLOR (15 s.u.)*	3	MERCURY	<.0005	TURBIDITY (5 s.u.)*	.3
COPPER (1.0)*	.012	NITRATE (45)*	<1.0	ZINC (5.0)*	.720

*RECOMMENDED LIMIT **MANDATORY LIMIT
ALL VALUES ARE MILLIGRAMS PER LITER UNLESS OTHERWISE NOTED.

BACTERIOLOGICAL RESULTS

	COLIFORM/100 ml	FECAL COLIFORM/100 ml
RAW WATER		
DISTRIBUTION #1	0	0
DISTRIBUTION #2		

REPORT ON INDIVIDUAL WATER SUPPLIES
U.S. FOREST SERVICE STUDY

NAME OF FOREST Chattahoochee National Forest DATE OF SURVEY 9/19/73
NAME OF SUPPLY Morganton Point STORAGE Underground concrete tank
TREATMENT none SOURCE well

BACTERIOLOGICAL QUALITY
NUMBER OF MONTHS IN PAST YEAR OF OPERATION THAT NO BACTERIOLOGICAL SAMPLES WERE TAKEN. 3
NUMBER OF MONTHS IN PAST YEAR OF OPERATION THAT ONE BACTERIOLOGICAL SAMPLE WAS TAKEN. 1
NUMBER OF MONTHS WHEN THE BACTERIOLOGICAL LIMITS OF THE DWS WERE NOT MET. 1

CHEMICAL QUALITY
DWS MANDATORY LIMITS FAILED Bacteriological Standard
DWS RECOMMENDED LIMITS FAILED

SANITARY CONDITIONS
IS THE SOURCE PROTECTION ADEQUATE? YES ___? NO ___

IS OPERATION AND CONTROL ADEQUATE? YES X NO ___

IS THE WATER SYSTEM CAPABLE OF DELIVERING A CONTINUOUS SUPPLY OF SAFE WATER WITHOUT MAJOR IMPROVEMENTS? YES X NO ___

PHYSICAL AND CHEMICAL RESULTS

ARSENIC (0.01)* (0.05)**	<.005	FLUORIDE (1.4 to 2.4) **	<.10	pH	6.8
BARIUM (1.0)**	<.05	IRON (0.3)*	.019	SELENIUM (0.01)**	<.005
CADMIUM (0.01)**	.000	LEAD (0.05)**	.000	SILVER (0.05)**	.000
CHLORIDE (250)*	<10.	M.B.A.S. (0.5)*	<.250	SULFATE (250)*	<25.
CHROMIUM (.05)**	.000	MANGANESE (0.05)*	.000	TOTAL DISSOLVED SOLIDS (500)*	58.
COLOR (15 s.u.)*	5	MERCURY	<.0005	TURBIDITY (5 s.u.)*	.1
COPPER (1.0)*	.057	NITRATE (45)*	<1.0	ZINC (5.0)*	.260

*RECOMMENDED LIMIT **MANDATORY LIMIT
ALL VALUES ARE MILLIGRAMS PER LITER UNLESS OTHERWISE NOTED.

BACTERIOLOGICAL RESULTS

	COLIFORM/100 ml	FECAL COLIFORM/100 ml
RAW WATER		
DISTRIBUTION #1	19	0
DISTRIBUTION #2	0	0

REPORT ON INDIVIDUAL WATER SUPPLIES
U.S. FOREST SERVICE STUDY

NAME OF FOREST Chattahoochee National Forest DATE OF SURVEY 9/18/73
NAME OF SUPPLY Anne Ruby Falls STORAGE none
TREATMENT none SOURCE Handpumped well

BACTERIOLOGICAL QUALITY

NUMBER OF MONTHS IN PAST YEAR OF OPERATION THAT NO BACTERIOLOGICAL SAMPLES WERE TAKEN. 11
NUMBER OF MONTHS IN PAST YEAR OF OPERATION THAT ONE BACTERIOLOGICAL SAMPLE WAS TAKEN. 0
NUMBER OF MONTHS WHEN THE BACTERIOLOGICAL LIMITS OF THE DWS WERE NOT MET. 1

CHEMICAL QUALITY

DWS MANDATORY LIMITS FAILED Bacteriological Standard
DWS RECOMMENDED LIMITS FAILED Iron

SANITARY CONDITIONS

IS THE SOURCE PROTECTION ADEQUATE? YES ___ NO x

Handpump is loose in concrete seal.

IS OPERATION AND CONTROL ADEQUATE? YES x NO ___

IS THE WATER SYSTEM CAPABLE OF DELIVERING A CONTINUOUS SUPPLY OF SAFE WATER WITHOUT MAJOR IMPROVEMENTS? YES x NO ___

PHYSICAL AND CHEMICAL RESULTS

ARSENIC (0.01)* (0.05)**	<.005	FLUORIDE (1.4 to 2.4) **	<.10	pH	7.1
BARIUM (1.0)**	<.05	IRON (0.3)*	.940	SELENIUM (0.01)**	<.005
CADMIUM (0.01)**	<.000	LEAD (0.05)**	.000	SILVER (0.05)**	<.000
CHLORIDE (250)*	<10.	M.B.A.S. (0.5)*	<.250	SULFATE (250)*	<25.
CHROMIUM (.05)**	<.000	MANGANESE (0.05)*	.012	TOTAL DISSOLVED SOLIDS (500)*	52.
COLOR (15 s.u.)*	3	MERCURY	<.0005	TURBIDITY (5 s.u.)*	3.8
COPPER (1.0)*	.006	NITRATE (45)*	<1.0	ZINC (5.0)*	.220

*RECOMMENDED LIMIT **MANDATORY LIMIT
ALL VALUES ARE MILLIGRAMS PER LITER UNLESS OTHERWISE NOTED.

BACTERIOLOGICAL RESULTS

	COLIFORM/100 ml	FECAL COLIFORM/100 ml
RAW WATER		
DISTRIBUTION #1	16	0
DISTRIBUTION #2		

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REPORT ON INDIVIDUAL WATER SUPPLIES
U.S. FOREST SERVICE STUDY

NAME OF FOREST Chattahoochee National Forest DATE OF SURVEY 9/18/73
NAME OF SUPPLY DeSoto Falls STORAGE Underground concrete tank
TREATMENT Chlorination SOURCE Spring

BACTERIOLOGICAL QUALITY

NUMBER OF MONTHS IN PAST YEAR OF OPERATION THAT NO BACTERIOLOGICAL SAMPLES WERE TAKEN. 3
NUMBER OF MONTHS IN PAST YEAR OF OPERATION THAT ONE BACTERIOLOGICAL SAMPLE WAS TAKEN. 1
NUMBER OF MONTHS WHEN THE BACTERIOLOGICAL LIMITS OF THE DWS WERE NOT MET. 1

CHEMICAL QUALITY

DWS MANDATORY LIMITS FAILED
DWS RECOMMENDED LIMITS FAILED

SANITARY CONDITIONS

IS THE SOURCE PROTECTION ADEQUATE? YES ___ NO x

Spring box is not tightly screened.

IS OPERATION AND CONTROL ADEQUATE? YES ___ NO x

No chlorine residuals in the distribution system at the time of the survey.

IS THE WATER SYSTEM CAPABLE OF DELIVERING A CONTINUOUS SUPPLY OF SAFE WATER WITHOUT MAJOR IMPROVEMENTS? YES x NO ___

PHYSICAL AND CHEMICAL RESULTS

ARSENIC (0.01)* (0.05)**	<.005	FLUORIDE (1.4 to 2.4) **	<.10	pH	6.6
BARIUM (1.0)**	<.05	IRON (0.3)*	.012	SELENIUM (0.01)**	<.005
CADMIUM (0.01)**	.000	LEAD (0.05)**	.000	SILVER (0.05)**	.000
CHLORIDE (250)*	<10.	M.B.A.S. (0.5)*	<.250	SULFATE (250)*	<25.
CHROMIUM (.05)**	.000	MANGANESE (0.05)*	.000	TOTAL DISSOLVED SOLIDS (500)*	19.
COLOR (15 s.u.)*	3	MERCURY	<.0005	TURBIDITY (5 s.u.)*	.1
COPPER (1.0)*	.031	NITRATE (45)*	<1.0	ZINC (5.0)*	.085

*RECOMMENDED LIMIT **MANDATORY LIMIT
ALL VALUES ARE MILLIGRAMS PER LITER UNLESS OTHERWISE NOTED.

BACTERIOLOGICAL RESULTS

	COLIFORM/100 ml	FECAL COLIFORM/100 ml
RAW WATER		
DISTRIBUTION #1	0	0
DISTRIBUTION #2	0	0

REPORT ON INDIVIDUAL WATER SUPPLIES
U.S. FOREST SERVICE STUDY

NAME OF FOREST Chattahoochee National Forest DATE OF SURVEY 9/19/73
NAME OF SUPPLY Frank Gross STORAGE none
TREATMENT none SOURCE handpumped well

BACTERIOLOGICAL QUALITY
NUMBER OF MONTHS IN PAST YEAR OF OPERATION THAT NO BACTERIOLOGICAL SAMPLES WERE TAKEN. 9
NUMBER OF MONTHS IN PAST YEAR OF OPERATION THAT ONE BACTERIOLOGICAL SAMPLE WAS TAKEN. 3
NUMBER OF MONTHS WHEN THE BACTERIOLOGICAL LIMITS OF THE DWS WERE NOT MET. 0

CHEMICAL QUALITY
DWS MANDATORY LIMITS FAILED
DWS RECOMMENDED LIMITS FAILED Iron, Zinc

SANITARY CONDITIONS
IS THE SOURCE PROTECTION ADEQUATE? YES x NO ___

IS OPERATION AND CONTROL ADEQUATE? YES x NO ___

IS THE WATER SYSTEM CAPABLE OF DELIVERING A CONTINUOUS SUPPLY OF SAFE WATER WITHOUT MAJOR IMPROVEMENTS? YES x NO ___

PHYSICAL AND CHEMICAL RESULTS

ARSENIC (0.01)* (0.05)**	<.005	FLUORIDE (1.4 to 2.4) **	<.10	pH	7.0
BARIUM (1.0)**	<.05	IRON (0.3)*	.940	SELENIUM (0.01)**	<.005
CADMIUM (0.01)**	.000	LEAD (0.05)**	.000	SILVER (0.05)**	.000
CHLORIDE (250)*	<10.	M.B.A.S. (0.5)*	<.250	SULFATE (250)*	<25.
CHROMIUM (.05)**	.000	MANGANESE (0.05)*	.033	TOTAL DISSOLVED SOLIDS (500)*	58.
COLOR (15 s.u.)*	2	MERCURY	<.0005	TURBIDITY (5 s.u.)*	1.8
COPPER (1.0)*	.018	NITRATE (45)*	<1.0	ZINC (5.0)*	12.0

*RECOMMENDED LIMIT **MANDATORY LIMIT
ALL VALUES ARE MILLIGRAMS PER LITER UNLESS OTHERWISE NOTED.

BACTERIOLOGICAL RESULTS

	COLIFORM/100 ml	FECAL COLIFORM/100 ml
RAW WATER		
DISTRIBUTION #1	0	
DISTRIBUTION #2		0

REPORT ON INDIVIDUAL WATER SUPPLIES
U.S. FOREST SERVICE STUDY

NAME OF FOREST Chattahoochee National Forest DATE OF SURVEY 9/18/73
NAME OF SUPPLY Dockery Lake STORAGE none
TREATMENT none SOURCE handpumped well

BACTERIOLOGICAL QUALITY
NUMBER OF MONTHS IN PAST YEAR OF OPERATION THAT NO BACTERIOLOGICAL SAMPLES WERE TAKEN. 10
NUMBER OF MONTHS IN PAST YEAR OF OPERATION THAT ONE BACTERIOLOGICAL SAMPLE WAS TAKEN. 2
NUMBER OF MONTHS WHEN THE BACTERIOLOGICAL LIMITS OF THE DWS WERE NOT MET. 0

CHEMICAL QUALITY
DWS MANDATORY LIMITS FAILED
DWS RECOMMENDED LIMITS FAILED

SANITARY CONDITIONS
IS THE SOURCE PROTECTION ADEQUATE? YES x NO ___

IS OPERATION AND CONTROL ADEQUATE? YES x NO ___

IS THE WATER SYSTEM CAPABLE OF DELIVERING A CONTINUOUS SUPPLY OF SAFE WATER WITHOUT MAJOR IMPROVEMENTS? YES x NO ___

PHYSICAL AND CHEMICAL RESULTS

ARSENIC (0.01)* (0.05)**	<.005	FLUORIDE (1.4 to 2.4) **	<.10	pH	7.4
BARIUM (1.0)**	<.05	IRON (0.3)*	.190	SELENIUM (0.01)**	<.005
CADMIUM (0.01)**	.000	LEAD (0.05)**	.000	SILVER (0.05)**	.000
CHLORIDE (250)*	<10.	M.B.A.S. (0.5)*	<.250	SULFATE (250)*	<25.
CHROMIUM (.05)**	.000	MANGANESE (0.05)*	.006	TOTAL DISSOLVED SOLIDS (500)*	62.
COLOR (15 s.u.)*	3	MERCURY	<.0005	TURBIDITY (5 s.u.)*	.4
COPPER (1.0)*	.038	NITRATE (45)*	<1.0	ZINC (5.0)*	.550

*RECOMMENDED LIMIT **MANDATORY LIMIT
ALL VALUES ARE MILLIGRAMS PER LITER UNLESS OTHERWISE NOTED.

BACTERIOLOGICAL RESULTS

	COLIFORM/100 ml	FECAL COLIFORM/100 ml
RAW WATER		
DISTRIBUTION #1	0	
DISTRIBUTION #2		0

REPORT ON INDIVIDUAL WATER SUPPLIES
U.S. FOREST SERVICE STUDY

NAME OF FOREST Chattahoochee National Forest DATE OF SURVEY 9/19/73
NAME OF SUPPLY Lake Blue Ridge STORAGE Underground concrete tank
TREATMENT none SOURCE Well

BACTERIOLOGICAL QUALITY

NUMBER OF MONTHS IN PAST YEAR OF OPERATION THAT NO BACTERIOLOGICAL SAMPLES WERE TAKEN. 3
NUMBER OF MONTHS IN PAST YEAR OF OPERATION THAT ONE BACTERIOLOGICAL SAMPLE WAS TAKEN. 2
NUMBER OF MONTHS WHEN THE BACTERIOLOGICAL LIMITS OF THE DWS WERE NOT MET. 0

CHEMICAL QUALITY

DWS MANDATORY LIMITS FAILED
DWS RECOMMENDED LIMITS FAILED

SANITARY CONDITIONS

IS THE SOURCE PROTECTION ADEQUATE? YES __?__ NO __

IS OPERATION AND CONTROL ADEQUATE? YES x NO __

IS THE WATER SYSTEM CAPABLE OF DELIVERING A CONTINUOUS SUPPLY OF SAFE WATER WITHOUT MAJOR IMPROVEMENTS? YES x NO __

PHYSICAL AND CHEMICAL RESULTS

ARSENIC (0.01)* (0.05)**	<.005	FLUORIDE (1.4 to 2.4) **	<.10	pH	6.8
BARIUM (1.0)**	<.05	IRON (0.3)*	.006	SELENIUM (0.01)**	<.005
CADMIUM (0.01)**	.000	LEAD (0.05)**	.000	SILVER (0.05)**	.000
CHLORIDE (250)*	<10.	M.B.A.S. (0.5)*	<.250	SULFATE (250)*	<25.
CHROMIUM (.05)**	.000	MANGANESE (0.05)*	.006	TOTAL DISSOLVED SOLIDS (500)*	35.
COLOR (15 s.u.)*	3.	MERCURY	<.0005	TURBIDITY (5 s.u.)*	3.5
COPPER (1.0)*	.057	NITRATE (45)*	<1.0	ZINC (5.0)*	.440

*RECOMMENDED LIMIT **MANDATORY LIMIT
ALL VALUES ARE MILLIGRAMS PER LITER UNLESS OTHERWISE NOTED.

BACTERIOLOGICAL RESULTS

	COLIFORM/100 ml	FECAL COLIFORM/100 ml
RAW WATER		
DISTRIBUTION #1	0	0
DISTRIBUTION #2	0	0

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REPORT ON INDIVIDUAL WATER SUPPLIES
U.S. FOREST SERVICE STUDY

NAME OF FOREST Chattahoochee National Forest DATE OF SURVEY 9/19/73
NAME OF SUPPLY Deep Hole STORAGE none
TREATMENT none SOURCE handpumped well

BACTERIOLOGICAL QUALITY

NUMBER OF MONTHS IN PAST YEAR OF OPERATION THAT NO BACTERIOLOGICAL SAMPLES WERE TAKEN. 9
NUMBER OF MONTHS IN PAST YEAR OF OPERATION THAT ONE BACTERIOLOGICAL SAMPLE WAS TAKEN. 3
NUMBER OF MONTHS WHEN THE BACTERIOLOGICAL LIMITS OF THE DWS WERE NOT MET. 1

CHEMICAL QUALITY

DWS MANDATORY LIMITS FAILED
DWS RECOMMENDED LIMITS FAILED Iron, Manganese, Zinc

SANITARY CONDITIONS

IS THE SOURCE PROTECTION ADEQUATE? YES x NO __

IS OPERATION AND CONTROL ADEQUATE? YES x NO __

IS THE WATER SYSTEM CAPABLE OF DELIVERING A CONTINUOUS SUPPLY OF SAFE WATER WITHOUT MAJOR IMPROVEMENTS? YES x NO __

PHYSICAL AND CHEMICAL RESULTS

ARSENIC (0.01)* (0.05)**	<0.005	FLUORIDE (1.4 to 2.4) **	0.12	pH	6.8
BARIUM (1.0)**	<0.05	IRON (0.3)*	1.5	SELENIUM (0.01)**	<0.005
CADMIUM (0.01)**	0.00	LEAD (0.05)**	0.00	SILVER (0.05)**	
CHLORIDE (250)*	<10	M.B.A.S. (0.5)*	<0.25	SULFATE (250)*	<25
CHROMIUM (.05)**	0.00	MANGANESE (0.05)*	0.13	TOTAL DISSOLVED SOLIDS (500)*	56
COLOR (15 s.u.)*	3	MERCURY	<0.0005	TURBIDITY (5 s.u.)*	3.0
COPPER (1.0)*	0.00	NITRATE (45)*	<1	ZINC (5.0)*	7.7

*RECOMMENDED LIMIT **MANDATORY LIMIT
ALL VALUES ARE MILLIGRAMS PER LITER UNLESS OTHERWISE NOTED.

BACTERIOLOGICAL RESULTS

	COLIFORM/100 ml	FECAL COLIFORM/100 ml
RAW WATER		
DISTRIBUTION #1	0	0
DISTRIBUTION #2	0	0

REPORT ON INDIVIDUAL WATER SUPPLIES
U.S. FOREST SERVICE STUDY

NAME OF FOREST Chattahoochee National Forest DATE OF SURVEY 9/17/73
NAME OF SUPPLY Rabon Beach Campground STORAGE underground concrete tank
TREATMENT chlorination SOURCE Stream

BACTERIOLOGICAL QUALITY
NUMBER OF MONTHS IN PAST YEAR OF OPERATION THAT NO BACTERIOLOGICAL SAMPLES WERE TAKEN. 4
NUMBER OF MONTHS IN PAST YEAR OF OPERATION THAT ONE BACTERIOLOGICAL SAMPLE WAS TAKEN. 0
NUMBER OF MONTHS WHEN THE BACTERIOLOGICAL LIMITS OF THE DWS WERE NOT MET. 1

CHEMICAL QUALITY
DWS MANDATORY LIMITS FAILED Bacteriological Standard
DWS RECOMMENDED LIMITS FAILED

SANITARY CONDITIONS
IS THE SOURCE PROTECTION ADEQUATE? YES X NO ___

IS OPERATION AND CONTROL ADEQUATE? YES ___ NO X
No chlorine residual is ever found in the distribution system dispite daily checks of the chlorinator.

IS THE WATER SYSTEM CAPABLE OF DELIVERING A CONTINUOUS SUPPLY OF SAFE WATER WITHOUT MAJOR IMPROVEMENTS? YES X NO ___

PHYSICAL AND CHEMICAL RESULTS

ARSENIC (0.01)*	<.005	FLUORIDE (1.4 to 2.4) **	<.10	pH	6.8
(0.05)**		IRON (0.3)*	.071	SELENIUM (0.01)**	<.005
BARIUM (1.0)**	<.05	LEAD (0.05)**	.000	SILVER (0.05)**	.000
CADMIUM (0.01)**	.000	M.B.A.S. (0.5)*	<.250	SULFATE (250)*	< 25.
CHLORIDE (250)*	<10	MANGANESE (0.05)*	.000	TOTAL DISSOLVED SOLIDS (500)*	22.
CHROMIUM (.05)**	.000	MERCURY	<.0005	TURBIDITY (5 s.u.)*	.4
COLOR (15 s.u.)*	3	NITRATE (45)*	<1.0	ZINC (5.0)*	.060
COPPER (1.0)*	.025				

*RECOMMENDED LIMIT **MANDATORY LIMIT
ALL VALUES ARE MILLIGRAMS PER LITER UNLESS OTHERWISE NOTED.

BACTERIOLOGICAL RESULTS

	COLIFORM/100 ml	FECAL COLIFORM/100 ml
RAW WATER		
DISTRIBUTION #1	Growth Confluent with coliform	2
DISTRIBUTION #2	Growth Confluent with coliform	6

REPORT ON INDIVIDUAL WATER SUPPLIES
U.S. FOREST SERVICE STUDY

NAME OF FOREST Chattahoochee National Forest DATE OF SURVEY 9/17/73
NAME OF SUPPLY Panther Creek STORAGE none
TREATMENT none SOURCE handpumped well

BACTERIOLOGICAL QUALITY
NUMBER OF MONTHS IN PAST YEAR OF OPERATION THAT NO BACTERIOLOGICAL SAMPLES WERE TAKEN. 11
NUMBER OF MONTHS IN PAST YEAR OF OPERATION THAT ONE BACTERIOLOGICAL SAMPLE WAS TAKEN. 1
NUMBER OF MONTHS WHEN THE BACTERIOLOGICAL LIMITS OF THE DWS WERE NOT MET. 0

CHEMICAL QUALITY
DWS MANDATORY LIMITS FAILED
DWS RECOMMENDED LIMITS FAILED Iron, Zinc

SANITARY CONDITIONS
IS THE SOURCE PROTECTION ADEQUATE? YES X NO ___

IS OPERATION AND CONTROL ADEQUATE? YES X NO ___

IS THE WATER SYSTEM CAPABLE OF DELIVERING A CONTINUOUS SUPPLY OF SAFE WATER WITHOUT MAJOR IMPROVEMENTS? YES X NO ___

PHYSICAL AND CHEMICAL RESULTS

ARSENIC (0.01)*	<.005	FLUORIDE (1.4 to 2.4) **	<.10	pH	6.6
(0.05)**		IRON (0.3)*	2.400	SELENIUM (0.01)**	<.005
BARIUM (1.0)**	<.05	LEAD (0.05)**	.000	SILVER (0.05)**	.000
CADMIUM (0.01)**	.000	M.B.A.S. (0.5)*	<.250	SULFATE (250)*	< 25
CHLORIDE (250)*	<10	MANGANESE (0.05)*	.037	TOTAL DISSOLVED SOLIDS (500)*	35.
CHROMIUM (.05)**	.000	MERCURY	<.0005	TURBIDITY (5 s.u.)*	1.5
COLOR (15 s.u.)*	3	NITRATE (45)*	<1.0	ZINC (5.0)*	7.700
COPPER (1.0)*	.050				

*RECOMMENDED LIMIT **MANDATORY LIMIT
ALL VALUES ARE MILLIGRAMS PER LITER UNLESS OTHERWISE NOTED.

BACTERIOLOGICAL RESULTS

	COLIFORM/100 ml	FECAL COLIFORM/100 ml
RAW WATER		
DISTRIBUTION #1	0	0
DISTRIBUTION #2		

REPORT ON INDIVIDUAL WATER SUPPLIES
U.S. FOREST SERVICE STUDY

NAME OF FOREST Chattahoochee National Forest DATE OF SURVEY 9/18/73
NAME OF SUPPLY Waters Creek STORAGE none
TREATMENT none SOURCE handpumped well

BACTERIOLOGICAL QUALITY

NUMBER OF MONTHS IN PAST YEAR OF OPERATION THAT NO BACTERIOLOGICAL SAMPLES WERE TAKEN. 9
NUMBER OF MONTHS IN PAST YEAR OF OPERATION THAT ONE BACTERIOLOGICAL SAMPLE WAS TAKEN. 13
NUMBER OF MONTHS WHEN THE BACTERIOLOGICAL LIMITS OF THE DWS WERE NOT MET. 0

CHEMICAL QUALITY

DWS MANDATORY LIMITS FAILED Bacteriological Standard
DWS RECOMMENDED LIMITS FAILED Color, Iron, Manganese, Turbidity

SANITARY CONDITIONS

IS THE SOURCE PROTECTION ADEQUATE? YES ___ NO X

Stuffing box leaks badly.

IS OPERATION AND CONTROL ADEQUATE? YES ___ NO X

Repair needed on handpump.

IS THE WATER SYSTEM CAPABLE OF DELIVERING A CONTINUOUS SUPPLY OF SAFE WATER WITHOUT MAJOR IMPROVEMENTS? YES ___ NO X

Source protection needs improvement.

PHYSICAL AND CHEMICAL RESULTS

ARSENIC (0.01)*	<.005	FLUORIDE (1.4 to 2.4) **	<.10	pH	6.0
(0.05)**		IRON (0.3)*	12.2	SELENIUM (0.01)**	<.005
BARIUM (1.0)**	<.05	LEAD (0.05)**	.000	SILVER (0.05)**	.000
CADMIUM (0.01)**	.000	M.B.A.S. (0.5)*	<.250	SULFATE (250)*	<25.
CHLORIDE (250)*	<10.	MANGANESE (0.05)*	.180	TOTAL DISSOLVED SOLIDS (500)*	19.
CHROMIUM (.05)**	.000	MERCURY	<.0005	TURBIDITY (5 s.u.)*	67.
COLOR (15 s.u.)*	50	NITRATE (45)*	<1.0	ZINC (5.0)*	.130
COPPER (1.0)*	.038				

*RECOMMENDED LIMIT **MANDATORY LIMIT
ALL VALUES ARE MILLIGRAMS PER LITER UNLESS OTHERWISE NOTED.

BACTERIOLOGICAL RESULTS

	COLIFORM/100 ml	FECAL COLIFORM/100 ml
RAW WATER		
DISTRIBUTION #1	45	0
DISTRIBUTION #2		

REPORT ON INDIVIDUAL WATER SUPPLIES
U.S. FOREST SERVICE STUDY

NAME OF FOREST Chattahoochee National Forest DATE OF SURVEY 9/18/73
NAME OF SUPPLY Brasstown Bald STORAGE Multiple tanks
TREATMENT none SOURCE spring

BACTERIOLOGICAL QUALITY

NUMBER OF MONTHS IN PAST YEAR OF OPERATION THAT NO BACTERIOLOGICAL SAMPLES WERE TAKEN. 11
NUMBER OF MONTHS IN PAST YEAR OF OPERATION THAT ONE BACTERIOLOGICAL SAMPLE WAS TAKEN. 1
NUMBER OF MONTHS WHEN THE BACTERIOLOGICAL LIMITS OF THE DWS WERE NOT MET. 0

CHEMICAL QUALITY

DWS MANDATORY LIMITS FAILED
DWS RECOMMENDED LIMITS FAILED

SANITARY CONDITIONS

IS THE SOURCE PROTECTION ADEQUATE? YES X NO ___

IS OPERATION AND CONTROL ADEQUATE? YES X NO ___

IS THE WATER SYSTEM CAPABLE OF DELIVERING A CONTINUOUS SUPPLY OF SAFE WATER WITHOUT MAJOR IMPROVEMENTS? YES ___ NO X

Storage tank vents should be screened.

PHYSICAL AND CHEMICAL RESULTS

ARSENIC (0.01)*	<.005	FLUORIDE (1.4 to 2.4) **	<.10	pH	6.9
(0.05)**		IRON (0.3)*	.025	SELENIUM (0.01)**	<.005
BARIUM (1.0)**	<.05	LEAD (0.05)**	.000	SILVER (0.05)**	.000
CADMIUM (0.01)**	.000	M.B.A.S. (0.5)*	<.250	SULFATE (250)*	<25.
CHLORIDE (250)*	<10.	MANGANESE (0.05)*	.000	TOTAL DISSOLVED SOLIDS (500)*	23.
CHROMIUM (.05)**	.000	MERCURY	<.0005	TURBIDITY (5 s.u.)*	.1
COLOR (15 s.u.)*	3	NITRATE (45)*	<1.0	ZINC (5.0)*	2.300
COPPER (1.0)*	.300				

*RECOMMENDED LIMIT **MANDATORY LIMIT
ALL VALUES ARE MILLIGRAMS PER LITER UNLESS OTHERWISE NOTED.

BACTERIOLOGICAL RESULTS

	COLIFORM/100 ml	FECAL COLIFORM/100 ml
RAW WATER		
DISTRIBUTION #1	0	0
DISTRIBUTION #2	0	0

REPORT ON INDIVIDUAL WATER SUPPLIES
U.S. FOREST SERVICE STUDY

NAME OF FOREST Chattahoochee National Forest DATE OF SURVEY 9/20/73
NAME OF SUPPLY Hidden Creek STORAGE none
TREATMENT none SOURCE Handpumped well

BACTERIOLOGICAL QUALITY
NUMBER OF MONTHS IN PAST YEAR OF OPERATION THAT NO BACTERIOLOGICAL SAMPLES WERE TAKEN. 10
NUMBER OF MONTHS IN PAST YEAR OF OPERATION THAT ONE BACTERIOLOGICAL SAMPLE WAS TAKEN. 2
NUMBER OF MONTHS WHEN THE BACTERIOLOGICAL LIMITS OF THE DWS WERE NOT MET. 0

CHEMICAL QUALITY
DWS MANDATORY LIMITS FAILED
DWS RECOMMENDED LIMITS FAILED Iron, Manganese, Turbidity

SANITARY CONDITIONS
IS THE SOURCE PROTECTION ADEQUATE? YES ___ NO X
The sanitary seal leaks and should be repaired.

IS OPERATION AND CONTROL ADEQUATE? YES X NO ___

IS THE WATER SYSTEM CAPABLE OF DELIVERING A CONTINUOUS SUPPLY OF SAFE WATER WITHOUT MAJOR IMPROVEMENTS? YES X NO ___

PHYSICAL AND CHEMICAL RESULTS

ARSENIC (0.01)* (0.05)**	<.005	FLUORIDE (1.4 to 2.4) **	<.10	pH	7.0
BARIUM (1.0)**	<.05	IRON (0.3)*	11.2	SELENIUM (0.01)**	<.005
CADMIUM (0.01)**	.000	LEAD (0.05)**	.000	SILVER (0.05)**	.000
CHLORIDE (250)*	<10.	M.B.A.S. (0.5)*	<.250	SULFATE (250)*	<25.
CHROMIUM (.05)**	.000	MANGANESE (0.05)*	.120	TOTAL DISSOLVED SOLIDS (500)*	34.
COLOR (15 s.u.)*	5	MERCURY	<.0005	TURBIDITY (5 s.u.)*	80
COPPER (1.0)*	.018	NITRATE (45)*	<1.0	ZINC (5.0)*	5.200

*RECOMMENDED LIMIT **MANDATORY LIMIT
ALL VALUES ARE MILLIGRAMS PER LITER UNLESS OTHERWISE NOTED.

BACTERIOLOGICAL RESULTS

	COLIFORM/100 ml	FECAL COLIFORM/100 ml
RAW WATER		
DISTRIBUTION #1	0	0
DISTRIBUTION #2		

REPORT ON INDIVIDUAL WATER SUPPLIES
U.S. FOREST SERVICE STUDY

NAME OF FOREST Chattahoochee National Forest DATE OF SURVEY 9/20/73
NAME OF SUPPLY The Pocket STORAGE Spring box and tank
TREATMENT none. SOURCE Spring

BACTERIOLOGICAL QUALITY
NUMBER OF MONTHS IN PAST YEAR OF OPERATION THAT NO BACTERIOLOGICAL SAMPLES WERE TAKEN. 7
NUMBER OF MONTHS IN PAST YEAR OF OPERATION THAT ONE BACTERIOLOGICAL SAMPLE WAS TAKEN. 4
NUMBER OF MONTHS WHEN THE BACTERIOLOGICAL LIMITS OF THE DWS WERE NOT MET 2

CHEMICAL QUALITY
DWS MANDATORY LIMITS FAILED
DWS RECOMMENDED LIMITS FAILED

SANITARY CONDITIONS
IS THE SOURCE PROTECTION ADEQUATE? YES ___ NO X
Overflow pipes should be screened.

IS OPERATION AND CONTROL ADEQUATE? YES X NO ___

IS THE WATER SYSTEM CAPABLE OF DELIVERING A CONTINUOUS SUPPLY OF SAFE WATER WITHOUT MAJOR IMPROVEMENTS? YES ___ NO X
Overflow pipe at tank should be screened.

PHYSICAL AND CHEMICAL RESULTS

ARSENIC (0.01)* (0.05)**	<.005	FLUORIDE (1.4 to 2.4) **	<.10	pH	7.8
BARIUM (1.0)**	<.05	IRON (0.3)*	.000	SELENIUM (0.01)**	<.005
CADMIUM (0.01)**	.000	LEAD (0.05)**	.000	SILVER (0.05)**	.000
CHLORIDE (250)*	<10.	M.B.A.S. (0.5)*	<.250	SULFATE (250)*	<25.
CHROMIUM (.05)**	.000	MANGANESE (0.05)*	.000	TOTAL DISSOLVED SOLIDS (500)*	111.
COLOR (15 s.u.)*	3.	MERCURY	<.0005	TURBIDITY (5 s.u.)*	.2
COPPER (1.0)*	.000	NITRATE (45)*	<1.0	ZINC (5.0)*	.045

*RECOMMENDED LIMIT **MANDATORY LIMIT
ALL VALUES ARE MILLIGRAMS PER LITER UNLESS OTHERWISE NOTED.

BACTERIOLOGICAL RESULTS

	COLIFORM/100 ml	FECAL COLIFORM/100 ml
RAW WATER		
DISTRIBUTION #1	0	
DISTRIBUTION #2		0

REPORT ON INDIVIDUAL WATER SUPPLIES
U.S. FOREST SERVICE STUDY

NAME OF FOREST Chattahoochee National Forest DATE OF SURVEY 9/20/73
NAME OF SUPPLY Keown Falls STORAGE none
TREATMENT none SOURCE Handpumped well

BACTERIOLOGICAL QUALITY

NUMBER OF MONTHS IN PAST YEAR OF OPERATION THAT NO BACTERIOLOGICAL SAMPLES WERE TAKEN. 8

NUMBER OF MONTHS IN PAST YEAR OF OPERATION THAT ONE BACTERIOLOGICAL SAMPLE WAS TAKEN. 3

NUMBER OF MONTHS WHEN THE BACTERIOLOGICAL LIMITS OF THE DWS WERE NOT MET. 0

CHEMICAL QUALITY

DWS MANDATORY LIMITS FAILED

DWS RECOMMENDED LIMITS FAILED

SANITARY CONDITIONS

IS THE SOURCE PROTECTION ADEQUATE? YES x NO ___

IS OPERATION AND CONTROL ADEQUATE? YES x NO ___

IS THE WATER SYSTEM CAPABLE OF DELIVERING A CONTINUOUS SUPPLY OF SAFE WATER WITHOUT MAJOR IMPROVEMENTS? YES x NO ___

PHYSICAL AND CHEMICAL RESULTS

ARSENIC (0.01)* (0.05)**	<.005	FLUORIDE (1.4 to 2.4) **	<.10	pH	7.9
BARIUM (1.0)**	<.05	IRON (0.3)*	.061	SELENIUM (0.01)**	<.005
CADMIUM (0.01)**	.000	LEAD (0.05)**	.000	SILVER (0.05)**	.000
CHLORIDE (250)*	<10	M.B.A.S. (0.5)*	<.250	SULFATE (250)*	<25.
CHROMIUM (.05)**	.000	MANGANESE (0.05)*	.000	TOTAL DISSOLVED SOLIDS (500)*	185.
COLOR (15 s.u.)*	3	MERCURY	<.0005	TURBIDITY (5 s.u.)*	.2
COPPER (1.0)*	.000	NITRATE (45)*	<1.0	ZINC (5.0)*	.470

*RECOMMENDED LIMIT **MANDATORY LIMIT
ALL VALUES ARE MILLIGRAMS PER LITER UNLESS OTHERWISE NOTED.

BACTERIOLOGICAL RESULTS

	COLIFORM/100 ml	FECAL COLIFORM/100 ml
RAW WATER		
DISTRIBUTION #1	1	0
DISTRIBUTION #2		

APPENDIX C

PROPOSED CHEMICAL AND BACTERIOLOGICAL SAMPLING CRITERIA

APPENDIX C

Proposed Chemical and Bacteriological Sampling Criteria

The chemical and bacteriological monitoring criteria recommended in this report are based on the 1962 Public Health Service Drinking Water Standards and EPA, Water Supply Division (WSD) guidance. A change in current WSD guidance on recommended frequency of chemical and bacteriological sampling is under consideration. This proposed change, summarized in the following paragraphs, is based on a concept of routinely monitoring for only those constituents in the standards where the potential for failing a limit is the greatest.

Chemical Monitoring

This proposed change is based on the concept of routinely monitoring only those constituents in the DWS where the potential for failing a limit is the greatest. This selection is based in part on an initial record of the water quality.

To establish an initial record of water quality, a complete analysis of all chemical and physical constituents for which a limit is established would be required for all systems. This requirement would be considered fulfilled if a reliable analysis has been performed for each constituent in the past and there is no reason to suspect that a significant change in water quality has occurred. The requirement may be waived for an initial record for pesticides and/or organics-carbon absorbable for specific ground water sources, if there is evidence to indicate that these constituents will not be found at significant levels. A single complete analysis combined with a review of watershed and aquifer characteristics, possible avenues of contamination, potential pollution sources, and available environmental monitoring data will provide an acceptable initial record to establish a routine analytical program.

A routine monitoring program would be established for "selected" constituents where the potential for failing a limit is the greatest. a "selected" analysis would include all constituents which, in an initial record, or subsequent sampling analysis, were present at levels in excess of 50% of the limit, plus any other determination of potential "problem" contaminants. A selective analysis would be required at least annually for surface supplies and triennially for ground water supplies. A more complete analysis would be required whenever there is reason to believe there may be a significant change in water quality. After this analysis, an appreciable adjustment to the routine sampling schedule would be made.

In summary, a periodic analysis of "selected" parameters, coupled with information gained through other means such as periodic sanitary surveys and environmental monitoring, will be a cost effective way to determine compliance with the physical and chemical constituents of the DWS. The proposed alternative monitoring requirements should result in a substantial reduction of cost over those contained in this report, which are based on the 1962 Public Health Service Drinking Water Standards.

Bacteriological Monitoring

The 1962 Public Health Service Drinking Water Standards are designed for interstate carrier water supply systems. It is proposed that separate guidance be issued for water systems having less than ten service connections or serving less than 40 individuals on a continuous basis. The frequency of bacteriological sampling could be established by taking into consideration the water supply source, method of treatment and storage, past bacteriological record, and the protection of the delivered water. The minimum number of samples collected and examined each month for these systems would be one. The time interval between samples would be approximately 30 calendar days.